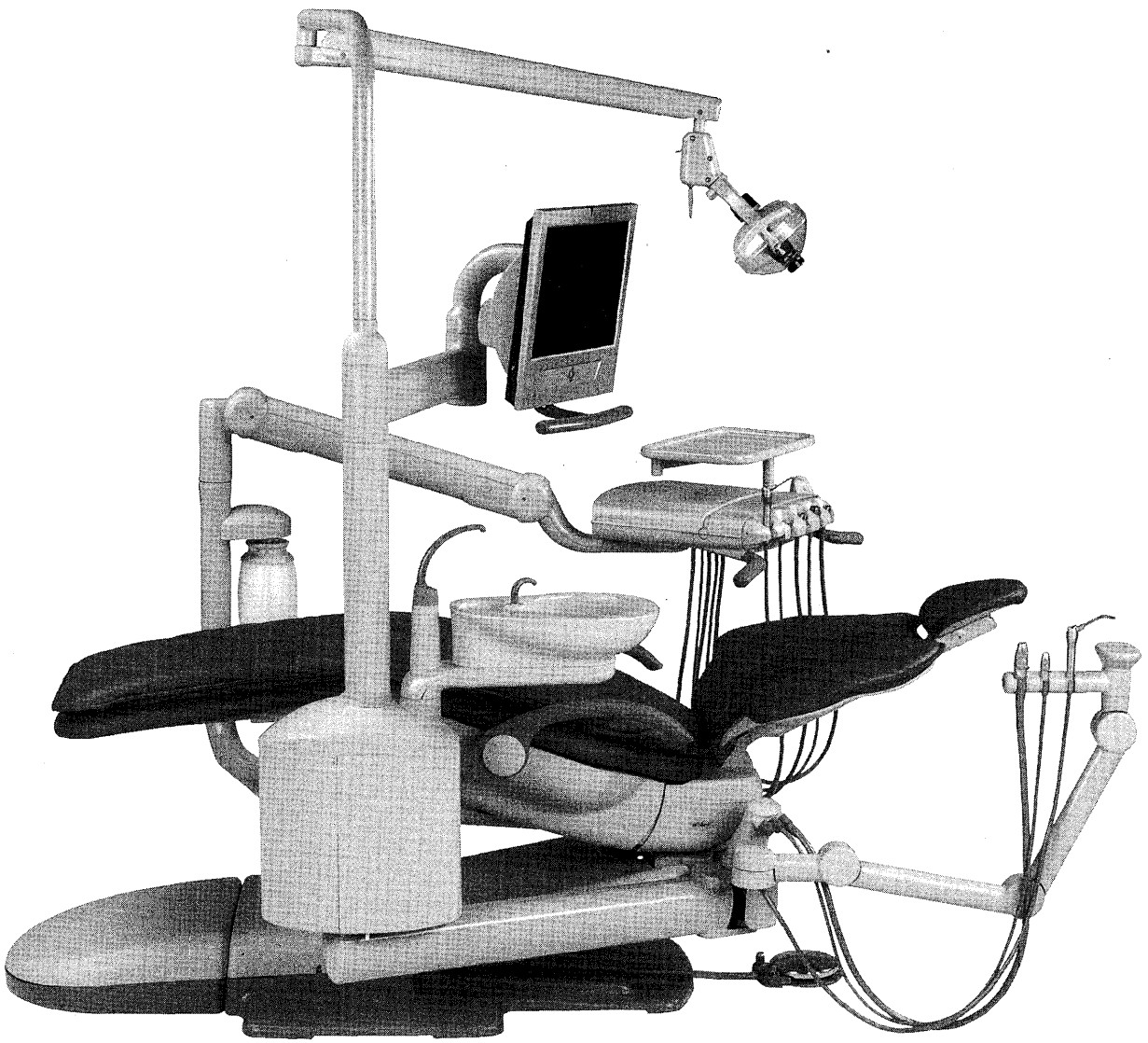
a-dec®

A-DEC 500™
INSTALLATION GUIDE



About This Install

This installation guide documents the steps for installing A-dec 500™ modules, providing a consistent flow from one module to the next. It removes the need for additional guides.

The *A-dec 500 Installation Guide* contains:

- Box sequence (page ii)
- Things to do before you begin (page v)
- Recommended tools (page v)
- Installation sequence (page vi)
- Installation checklist (page 81)

Conventions

A number of items and instructions appear throughout this document. The formatting conventions are designed to make information quick and easy to find and understand.

- References to sections, or reference documentation appear in italic type. For example, *How to Install the Back Support* or *Genuine A-dec Service Parts Catalog*.
- Important supplemental information about the covered topic appears as a note. For example,

  NOTE: Turn the nut an additional half turn.

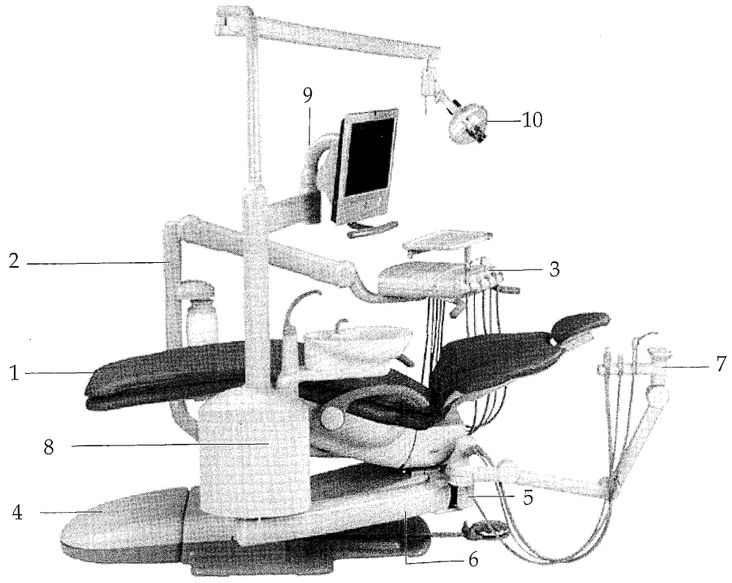
- Callouts and tables identify key components in illustrations.
- Page tabs quickly identify the sections for the installer.

Box Sequence

Proper placement of the boxes speeds the assembly process. Use these numbers to sequence the modules in the order they will be assembled. If all modules of the A-dec 500 are being installed, place them in the following order:

The front mount (box 2), may be packaged with the front-mount monitor mount, or with the delivery system.

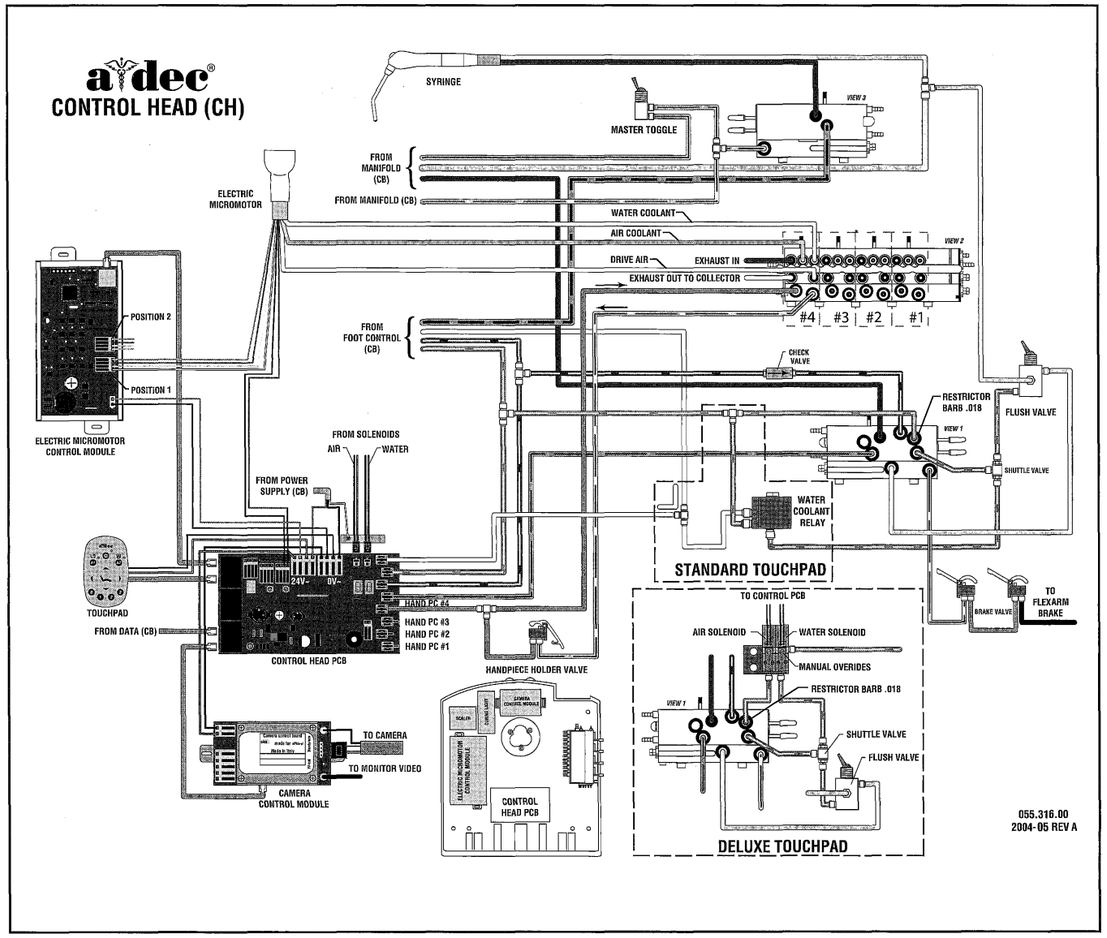
Box No.	Module
1	Chair
2 3	Front mount (2), and delivery system or front-mount monitor mount (3) may be packaged together
2 4	Front mount (2), and floor box (4) may be packaged together
3	Delivery system or front-mount monitor mount
5	Support link
6	Lower support arm
7	Assistant's instrumentation
8	Cuspidor
9	Support side monitor mount
10	Light
11	Amalgam separator housing



Flow Diagrams

A-dec 500 equipment contains four flow diagrams to use as installation tools and quick reference. Each flow diagram has important information about plumbing and wiring. The flow diagrams are located with the delivery system, support center, motor pump, and floor box covers.

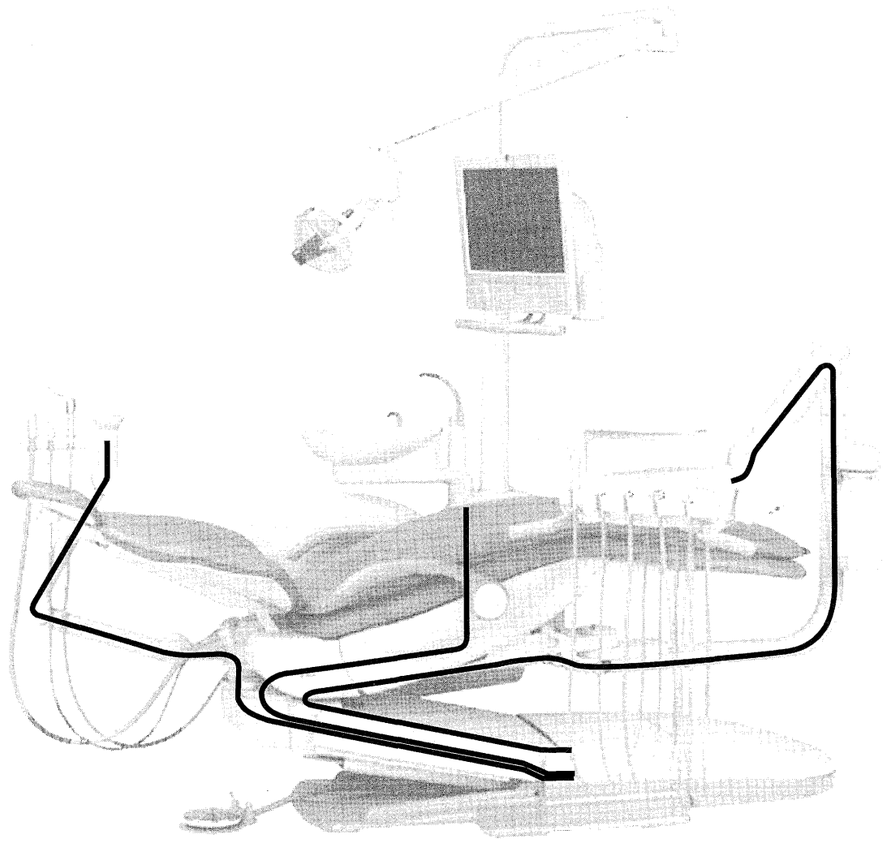
You will still find the same plumbing information in the service guide, if troubleshooting becomes necessary.



The A-dec 500 equipment uses an electronic communication function called the Data Communication System (DCS).

The DCS allows modules to communicate with each other. It is so versatile that modules can be plugged into any of the data line connectors on the circuit board. The circuit board recognizes which module has been plugged in and allows operation of that module to begin. For example, when connecting a cuspidor, the DCS automatically recognizes the cuspidor module. If a module malfunctions or fails to work, the DCS will maintain service to the rest of the modules.

For more information on the DCS, see the *Data Communication System* section of the *A-dec Service Guide, Volume II*.



Before starting the installation, review these points. Check with local building and code authorities about installation requirements. They differ from state to state and internationally.

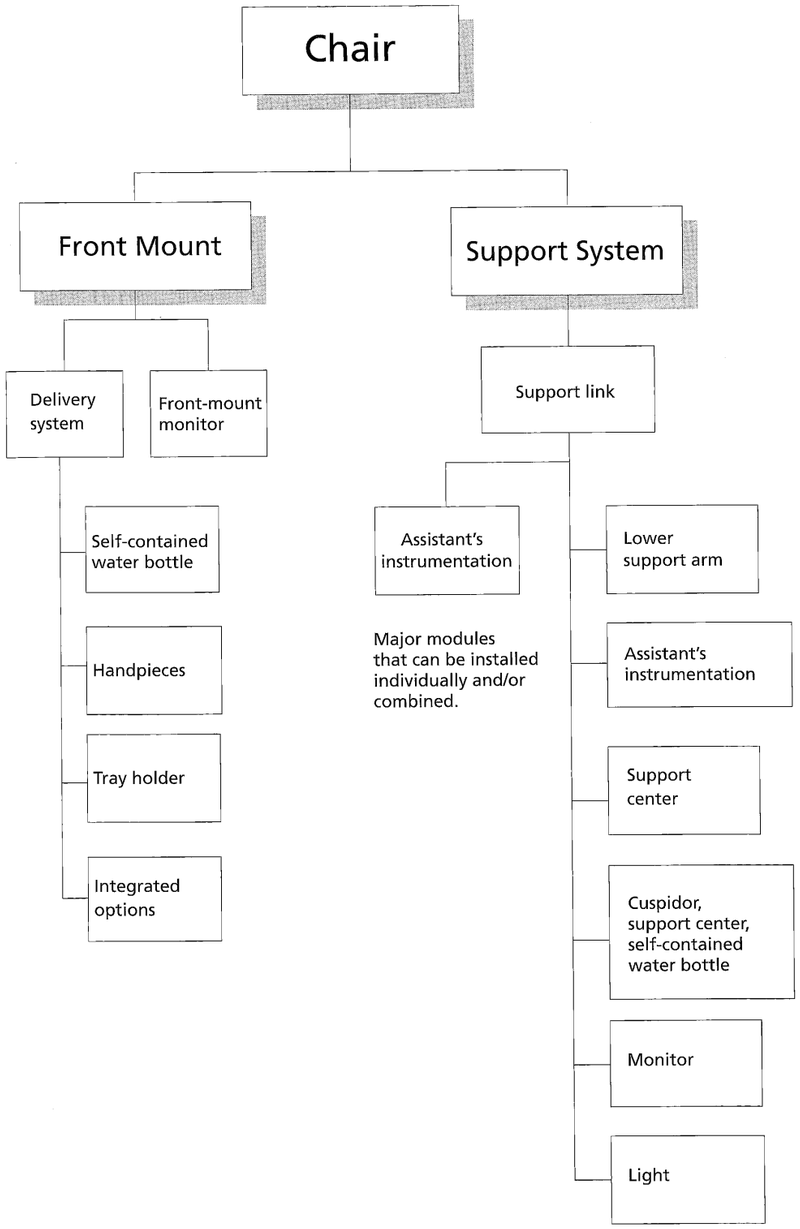
- Check that manual air and water shut-offs have been installed.
- Purge any debris from air and water lines.
- Use the chair template to determine placement of the chair for anchoring the chair to the floor.
- Make copies of the final checklist for each installation.

NOTE: Use caution when removing the modules from their packaging and watch for kits that will be needed for installation. Some kits are included for the doctor and should be set aside during installation, i.e., solids collector screens and syringe tips.

Recommended Tools

- Hex key set
- Phillips and standard screwdrivers #1 and #2
- SAE socket wrenches
- Snap ring tool
- Adjustable wrench
- Needle nose pliers
- 3/4", 5/16", 7/16", 15/16" open-end wrenches
- Standard pliers
- Diagonal cutters
- Ball peen hammer
- Wire strippers — small gauge wire size
- Level
- Roto hammer drill
- 3/8" drill bit
- 1/2" concrete drill bit
- 1/8" ball drivers
- Umbilical snake

This flow chart details the installation sequence for the A-dec 500 system.



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1 — Chair

Check the flooring material. If it is not at least 3-1/4" (82 mm) thick, a licensed contractor should be contacted about reinforcing the floor.

How to Position the Chair

To move the chair from the pallet to the floor, follow these steps.

CAUTION: Do not attempt to position the chair by pulling or pushing on the armrests.

1. Unpackage the chair, but do not remove the shipping straps (see Figure 1).
2. Using the seat frame, remove the chair from the pallet and place in position.
3. Remove both shipping straps.
4. Plug-in the power cord and power ON the chair.

   The Power On/Off button is located on the base of chair. This function allows you to engage power or disengage power to the entire system at the touch of a button. When the button is pressed in, the system has power. When the button is out, the system has no power.

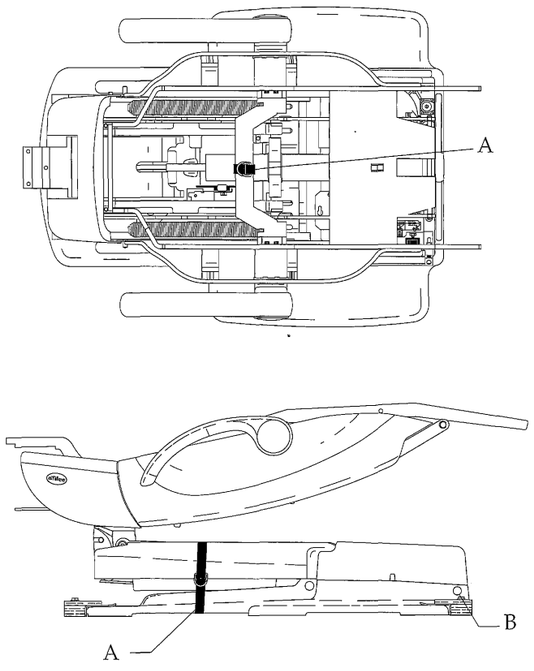

Figure 1. Removing the chair from the pallet. (A) shipping straps; (B) power button

How to Remove the Shipping Pin

To remove the shipping pin, use the three-tap feature to raise the chair.

1. Tap the right side of the chair stop plate three times, and continue to hold the plate on the third tap.
2. Keep holding until the chair base and back are both in the full up position (see Figure 2).

   To lower the chair back, tap the stop plate three times and hold on the third tap.

   Repeat these steps to alternate moving the chair back up and down.

   The chair base will not go down until a footswitch or touchpad is installed. Once a touchpad has been installed, the three-tap feature will be disabled .
3. Grasp the shipping pin and pull straight down (see Figure 3).

   It may be necessary to release the swivel brake to remove the pin.

NOTE: To prevent the chair from swiveling, leave the shipping pin in place.

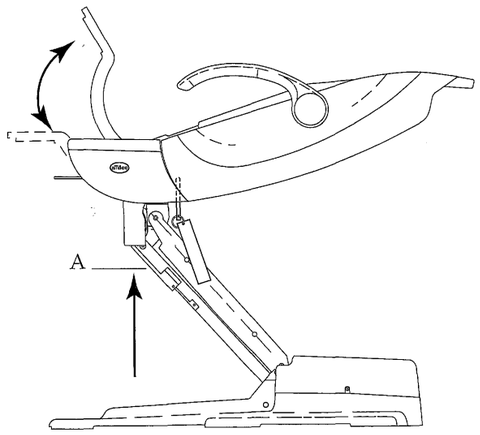

Figure 2. Chair cycles. (A) stop plate

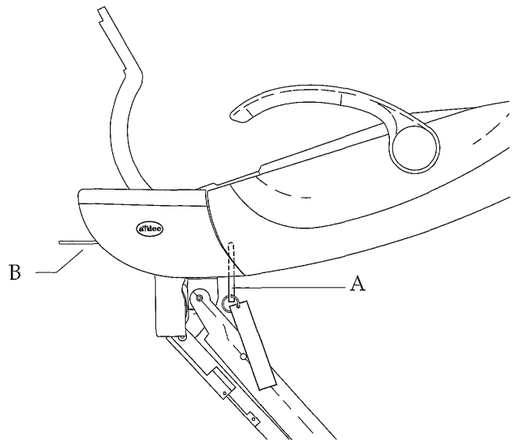

Figure 3. Removing the shipping pin. (A) shipping pin; (B) swivel brake

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How to Anchor the Chair to the Floor

Loosen the swivel brake to rotate the seat frame of the chair to the left or right so the chair anchoring hole is clearly accessible (see Figure 4).

Use these steps to anchor the chair to the floor.

CAUTION: A hydraulic line runs near the anchoring hole.

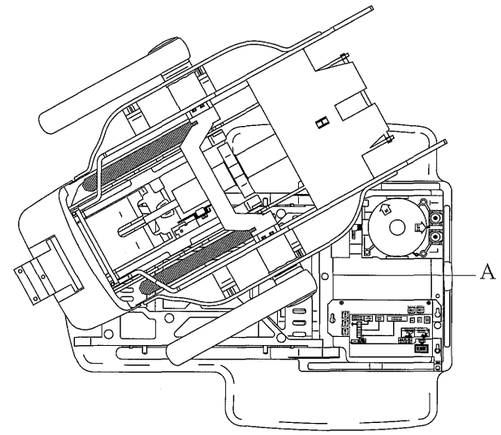

Figure 4. After positioning the chair, rotate it away from the anchoring hole. (A) anchoring hole

If you are . . .	Then . . .
anchoring to a concrete floor	1. Drill a 4" (101 mm) deep hole using a roto-hammer drill. 2. Remove any debris. 3. Place the nut and washer on the anchor bolt and tap into hole. **NOTE**: Keep the nut flush with the top of the anchor bolt. 4. Tighten the nut onto the anchor bolt until it is tight against the washer and firmly holds the baseplate to the floor (see Figure 5).
anchoring to a wood floor	1. Drill a 2" (50 mm) deep hole, using a 3/8" (0.375 mm) drill. 2. Remove any debris. 3. Place the washer on the anchor bolt and insert it into the hole. 4. Tighten the anchor bolt until it is tight against the washer and firmly holds the baseplate to the floor (see Figure 6).

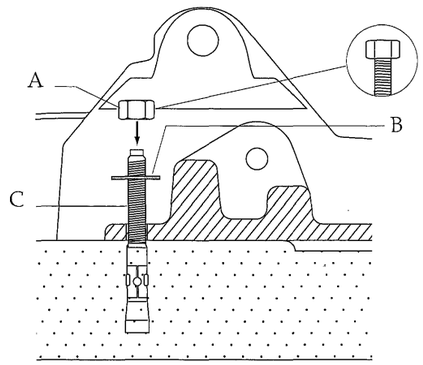

Figure 5. Concrete floor anchoring depth is 4" (101 mm). (A) nut; (B) washer; (C) anchor bolt

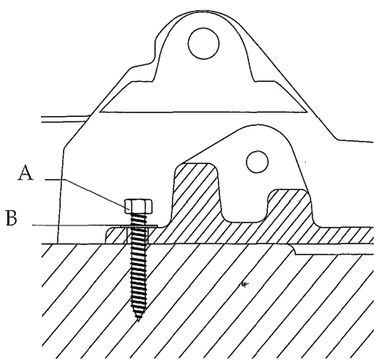

Figure 6. Wood floor anchoring depth is 2" (50 mm). (A) anchor bolt; (B) washer

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How to Add a Footswitch

If you are not installing a footswitch, proceed to *How to Install the Chair Back Support*.

If adding a footswitch to the chair, follow these steps for installation.

1. Power OFF the chair.

ELECTRICAL WARNING:
Failure to power off the chair could result in serious injury.

2. If not already removed, remove the pump cover.
3. Route the footswitch cable underneath the chair lift arm and through the strain relief bracket (see Figure 7).
4. Connect the footswitch cable to the circuit board and tighten the strain relief screw.

   If this unit has a foot control, do not tighten the strain relief screw.

NOTE: If this chair will have other modules installed, leave the pump cover off.

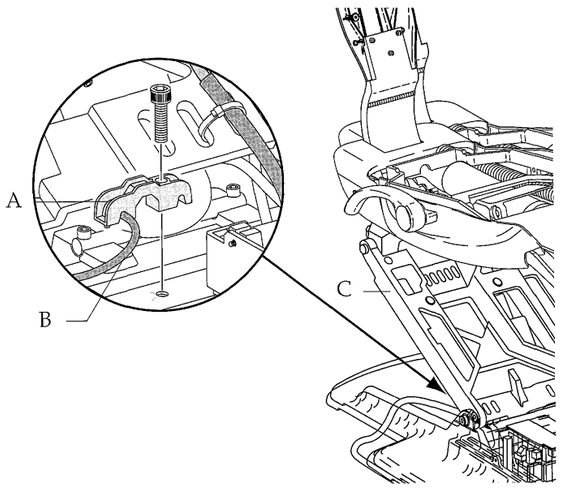

Figure 7. Routing the footswitch cable underneath the chair lift arm and through the strain relief bracket. (A) strain relief bracket; (B) footswitch cable; (C) chair lift arm

How to Install the Chair Back Support

1. Remove the three mounting screws from the chair back support.
2. Attach the back support to the chair back with the mounting screws (see Figure 8).
3. Tighten firmly.

CAUTION: If the back is not tightened firmly, it will loosen during use.

4. Put the headrest assembly on the chair.

If this is a chair only installation, proceed to *Upholstery*.

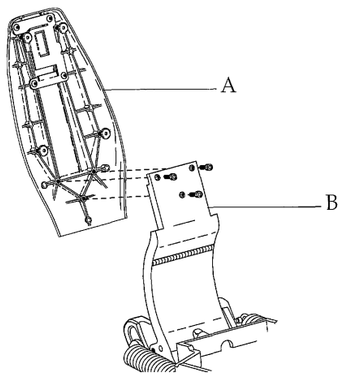

Figure 8. Attaching the chair back support to the chair back. (A) back support; (B) chair back

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2 — Front Mount

How to Install the Front-Mount Arm

The front-mount arm is mounted on the front of the chair, and is used for mounting a Traditional or Continental delivery system or for mounting a front-mount monitor.

1. The chair should be positioned full back and base up.

WARNING: When raising and lowering the chair, keep your hands and fingers clear of moving parts.

2. Install the leveling cam to the upper structure with the cam screws and tighten lightly.

   Lifting the seat frame improves access (see Figure 9).
3. Screw in the leveling bolts, and tighten lightly, leave two threads exposed.
4. Position the chair to full back down.
5. Hang the arm on the leveling cam (see Figure 10).
6. Add the rotation stop pins and bumpers, according to whether the right-handed or left-handed front mount will be installed (see Figures 11 and 12).

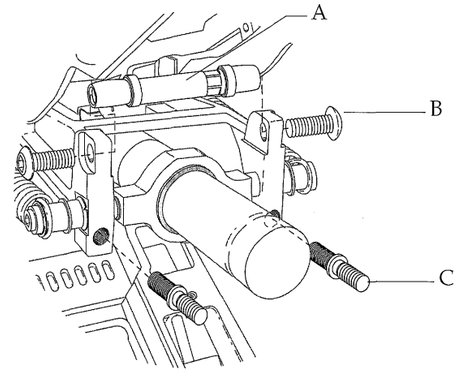

Figure 9. Installing the leveling cam. (A) leveling cam; (B) cam screw; (C) leveling bolt

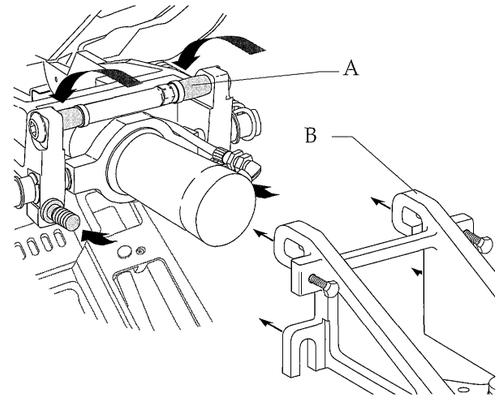

Figure 10. Hanging the front-mount arm on the leveling cam. (A) leveling cam; (B) front-mount arm

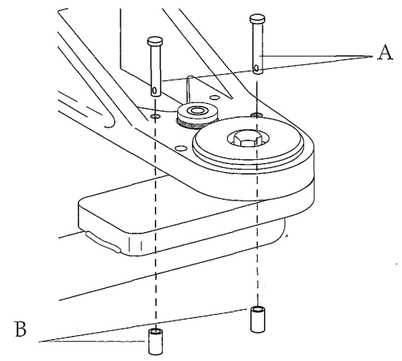

Figure 11. Identifying right-hand rotation stop pins. (A) stop pin; (B) bumper

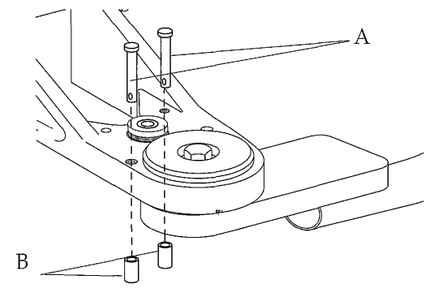

Figure 12. Installing left-hand rotation stop pins. (A) stop pin; (B) bumper

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How to Rough Level the Front Mount

Using the bubble level on the front-mount arm, rough level the system for stabilization. Final leveling is done after installing all modules.

1. Using an open-end wrench, turn the cam until the front mount is roughly leveled side-to-side.
2. Adjust one leveling bolt until the front mount is level front-to-back.
3. Adjust the other leveling bolt until it touches the front-mount casting.
4. Install the two flanged nuts on the leveling bolts finger tight and tighten lightly.

   NOTE: Once the front mount is secured and leveled, the mount may not contact both sides of the leveling cam.

5. Tighten the cam screws and the leveling bolts.

See *Final Leveling and Adjustments* for additional information on how to level and adjust the front mount.

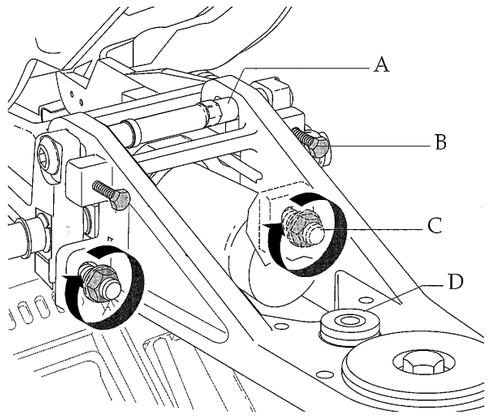


Figure 13. Leveling the front-mount arm. (A) leveling cam; (B) stabilizing screw; (C) flanged nut and leveling bolt; (D) bubble level

Front Mount Self-Contained Water Bottle

How to Install the Chair Air/Water Manifold

The chair air/water manifold is the central connection point for air and water tubing.

The installed modules from the chair air/water manifold will determine what barbs or plugs are removed/replaced.

1. Remove the mounting screw from the chair lift arm.
2. Place the chair air/water manifold locator pin in the hole on the chair lift arm.
3. Secure the manifold with the mounting screw (see Figure 14).

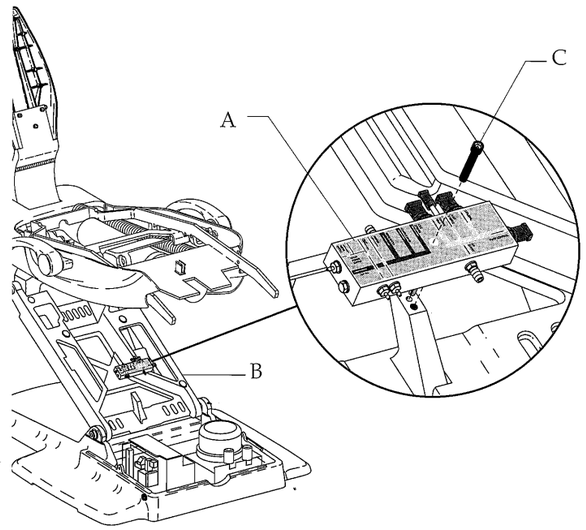


Figure 14. Attaching the chair air/water manifold. (A) chair air/water manifold; (B) chair lift arm; (C) mounting screw

How to Install the Water Bottle

There are two locations to mount the water bottle. It can be mounted either on the front-mount arm or inside the support center.

Follow these steps to install the water bottle to the front mount. For instructions on installing the water bottle in the support center, see *Support Center and Cuspidor*.

NOTE: The water bottle can be found in Box 4 below the floor box.

1. Carefully remove the hole plug from the front-mount arm by lifting from the bottom (see Figure 15).
2. Install the mounting screw leaving some threads exposed.
3. Feed the tubing into the tubing hole, and down the arm.
4. Mount the cap housing over the screw and tighten.
5. Route the tubing through the chair upper structure tubing guide and down through the chair lift arm.
6. Lube the O-ring on the receptacle and attach the water bottle (see Figure 16).

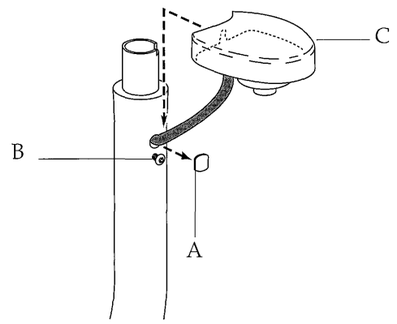


Figure 15. Remove the hole plug and attach the mounting screw. (A) hole plug; (B) mounting screw; (C) cap housing

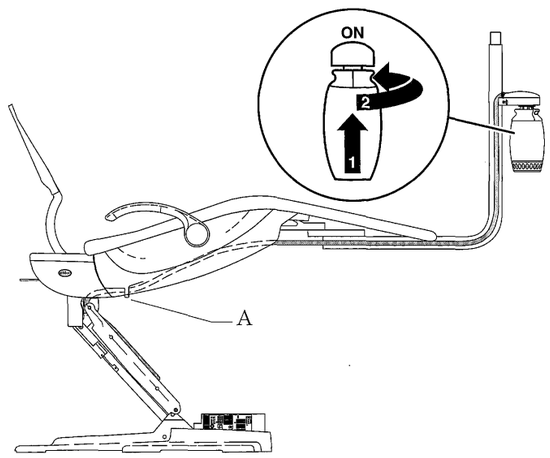


Figure 16. Routing of tubing and attaching the water bottle. (A) tubing guide

3 — Delivery System

How to Install the Delivery System

1. Lower the chair and ensure power is off.
2. Use Lubriplate® to lube the post of the front-mount arm (see Figure 17).
3. Add the thrust washer (taped to the bottom of the hub) to the post.
4. Position the delivery system assembly on the arm.
5. Route the tubing through the arm.
6. Install the pivot stop ring, with the key of the stop ring in the notch of the arm.
7. Add the snap ring on top of the pivot stop ring to secure the delivery system assembly to the post.
8. Adjust the rotation tension on the flexarm by tightening the setscrew.
9. Route the tubing through the chair upper structure tubing guide and down through the chair lift arm.

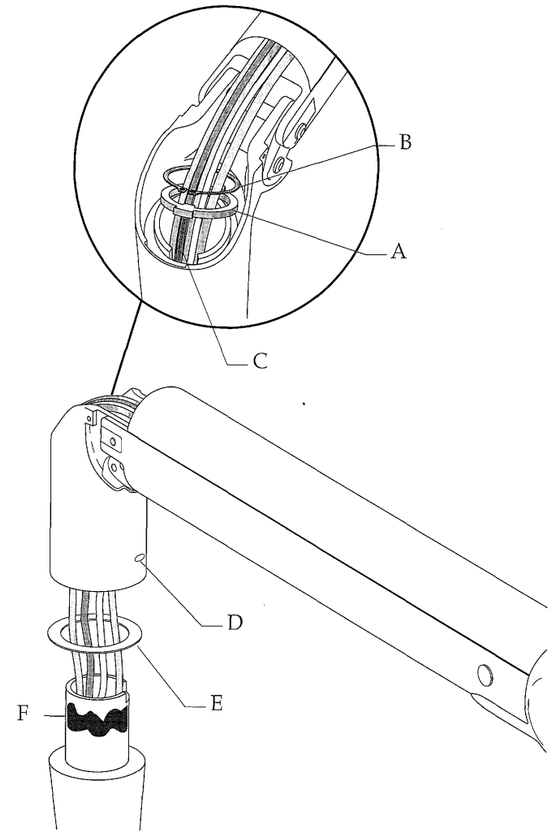


Figure 17. Seating the delivery system. (A) pivot stop ring; (B) snap ring; (C) notch; (D) setscrew; (E) thrust washer; (F) Lubriplate

How to Install Handpiece Tubing

Before Installing Handpiece Tubing

- Open the delivery system covers. On the Continental delivery system, unscrew the front cover.
- Ensure the handpiece position is active (see Figure 18).

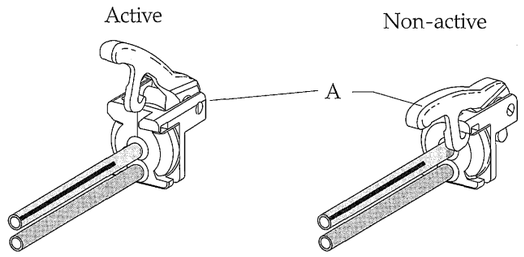


Figure 18. Active and non-active handpiece positions. (A) actuator

How to Install Handpiece Tubing on a Continental Delivery System

1. Lay the new handpiece tubing into the whip and through the whip pivot.
2. Adjust the length of the handpiece tubing to the appropriate length, and cable tie the handpiece tubing to the ball of the whip. Use the syringe cable tie for reference (see Figure 19).
3. Route the handpiece tubing through the grooves in the structural platform and under the circuit board (see Figure 20).
4. Insert the tubing into the tubing retainers, and secure the tubing to the structural platform with cable ties.
5. To install the whip cover, fully extend the whip and attach the back starting at the ball end and work toward the handpiece end.

   NOTE: Start the whip cover in the groove of the ball. Push down on the cover to feed underneath the delivery system front cover.

6. Place front cover back in position and tighten.

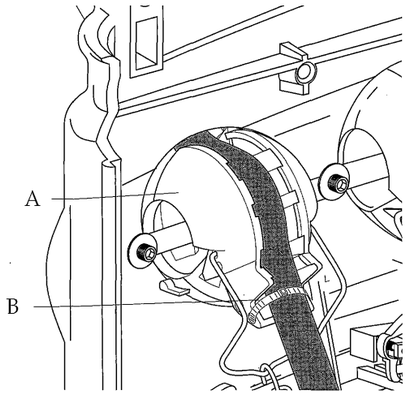


Figure 19. Cable tie the handpiece tubing to the ball of the whip. (A) whip pivot; (B) cable tie

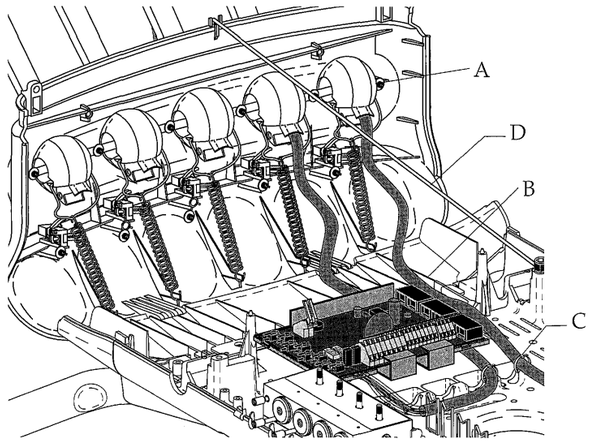


Figure 20. Route handpiece tubing through structural platform grooves. (A) whip cover; (B) structural platform groove; (C) tubing retainers; (D) lanyard

How to Install an Additional Whip Assembly

1. Remove the screws and washers from either side of the empty position to remove the position cover (see Figure 21).
2. Place the whip in the open position, and reinstall the screws and washers on either side of the whip assembly.
3. Attach the spring.
4. Install handpiece tubing, see *How to Install Handpiece Tubing*.

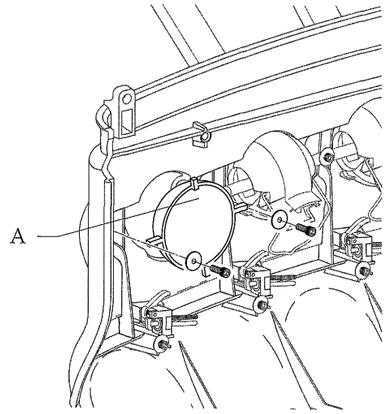


Figure 21. Removing the empty position cover. (A) position cover

How to Install Handpiece Tubing on a Traditional Delivery System

1. Remove the tubing guide from the underside of the delivery system, and twist-out the appropriate positions.
2. Insert the handpiece tubing through the guide, and adjust the length of the new tubing to the drape length of the syringe tubing.
3. Insert the tubing into the tubing retainers, and secure the tubing to the structural platform with cable ties.
4. Replace the tubing guide on the underside of the delivery system (see Figure 22).

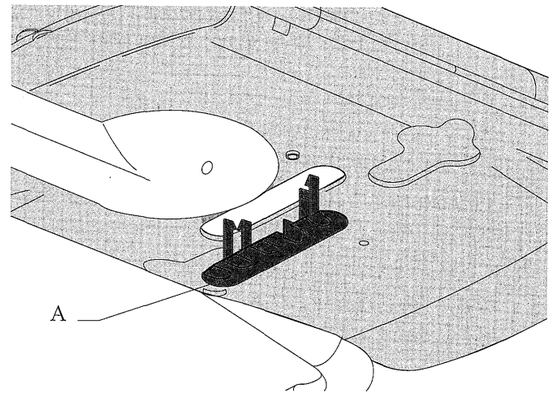


Figure 22. Tubing guide. (A) tubing guide

How to Connect the Handpiece Tubing to the Control Block

Use the table to determine tubing function.

Tubing Colors and Functions	
Color	Function
Clear	Drive air
Red	Exhaust
Blue	Air coolant
Green	Water coolant

1. Open the control block slidelock, and attach each handpiece tubing to the control block (see Figure 23).

   NOTE: Do not trim the handpiece tubing. Carefully lay the tubing in the delivery system to prevent kinking.

2. If installing fiber-optic tubing, connect the wires to the appropriate fiber-optic position on the circuit board (see Figure 24).

For details on installing fiber-optic tubing, see *How to Connect Wiring* in the *Integrated Options* section.

3. Close the slidelock securing the quick disconnects.
4. Install the strain relief screw into the structural platform, and wrap the strain relief string around the screw (see Figure 24).
5. Tighten the screw and trim the string.
6. Install control block adjustment keys.

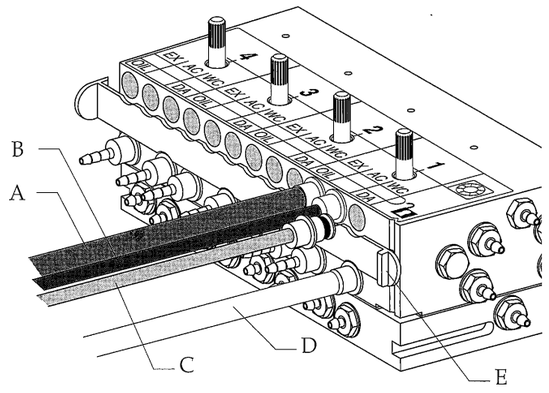


Figure 23. Identifying the inner tubing. (A) exhaust; (B) air coolant; (C) water coolant; (D) drive air; (E) slidelock

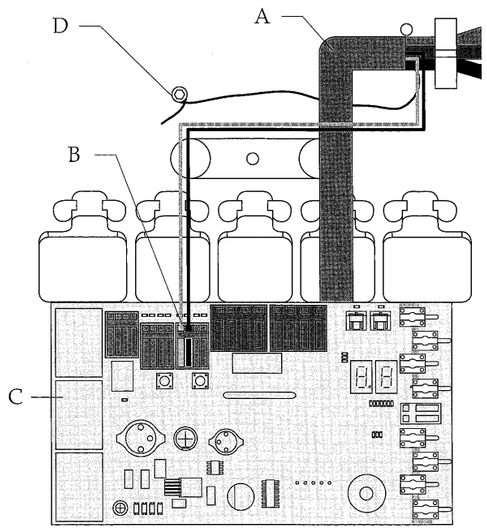


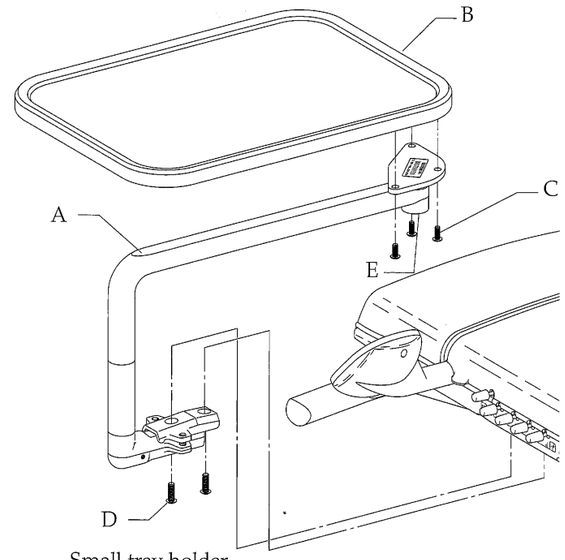
Figure 24. Connecting the fiber-optic tubing and wires to the control block and structural platform. (A) silicone handpiece tubing; (B) handpiece position; (C) circuit board; (D) strain relief string

Delivery System Tray Holder

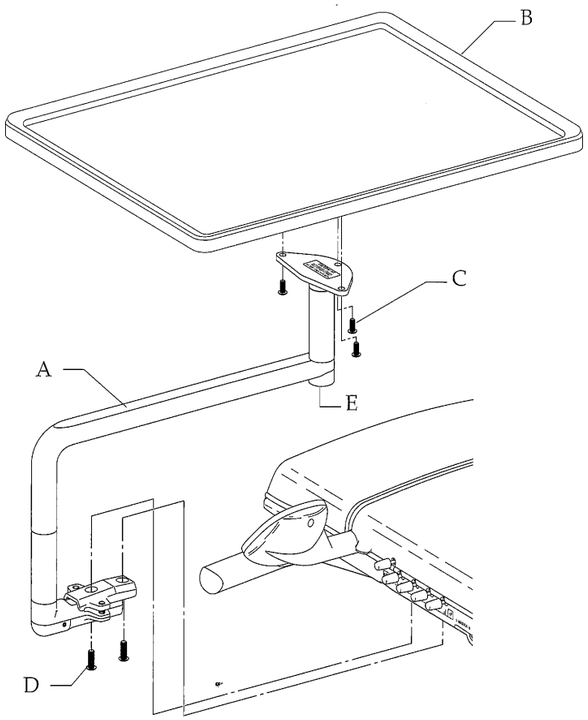
The tray support arm can be mounted on the left or right side of the delivery system. The tray holder should be positioned above the Traditional delivery system and below the Continental delivery system.

1. Attach the tray support arm to the tray holder with three screws.
2. Mount the tray holder assembly to the delivery system with hex head bolts (see Figure 25).
3. Adjust the arm friction using the hex head bolt.

   The delivery system and the front mount may need to be rough leveled. Final leveling should be done once the installation is complete, see *Final Leveling and Adjustments*.



Small tray holder



Large tray holder

Figure 25. Installing a tray holder to the delivery system. (A) tray support arm; (B) tray holder; (C) small screw; (D) large screw (E) hex bolt

How to Adjust the Flexarm Counterbalance

1. Lower the delivery system to its lowest point and load it for normal use.
2. Remove the rear knuckle covers and slide the flexarm cover off the flexarm (see Figure 26).

CAUTION: To prevent damage, do not allow the flexarm to move upward until the cover is removed.

3. Adjust the flexarm spring rod with a 7/16" open-ended wrench, until the delivery system maintains position with the master toggle turned off.
   - Loosen if delivery system drifts up.
   - Tighten if delivery system drifts down.
4. Replace the covers.
5. Adjust the rotation tension on the flexarm by tightening the setscrew (see Figure 26).

   If the delivery system does not seat flush on the front-mount arm, loosen the setscrew.

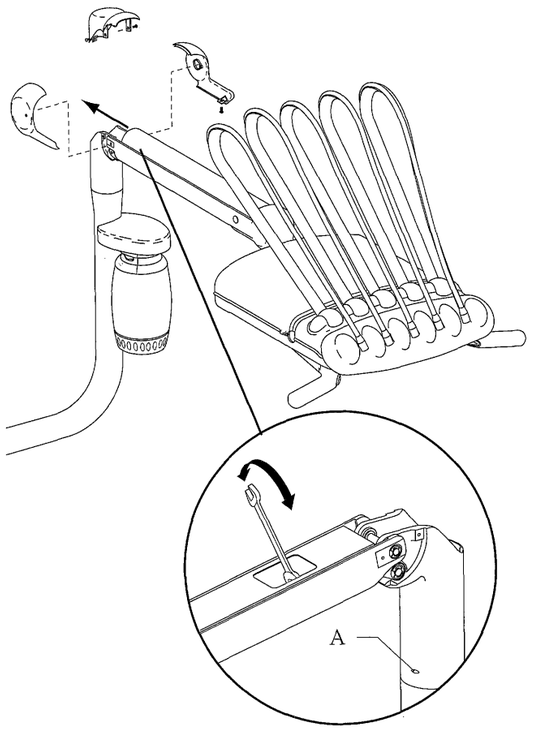


Figure 26. Adjusting the flexarm counterbalance. (A) setscrew

3 — Front Monitor Mount

The front monitor mount installs in place of a delivery system, and can accommodate most 15" (381 mm), 17" (432 mm), and 19" (483 mm) flat-panel monitors.

How to Add the Extender Post and Monitor-Mount Arm

- Insert the extender post (tapered end first) onto the front-mount arm, rotating the post until it drops into place (see Figure 27).
- Add the monitor-mount arm onto the extender post. Rotate the arm until it engages the rotation stop.

How to Route the Monitor Cables

- Route the monitor cables and video cable through the posts and the chair lift arm. Leave approximately 18"(457 mm) of cable hanging free on the monitor end of the monitor-mount arm.

  The video cable is not supplied.
- Connect the cables to the appropriate video source, and connect the monitor power cable to the chair power supply.

NOTE: If using with an A-dec intraoral camera, route the camera video cable from the delivery system umbilical up to the monitor.

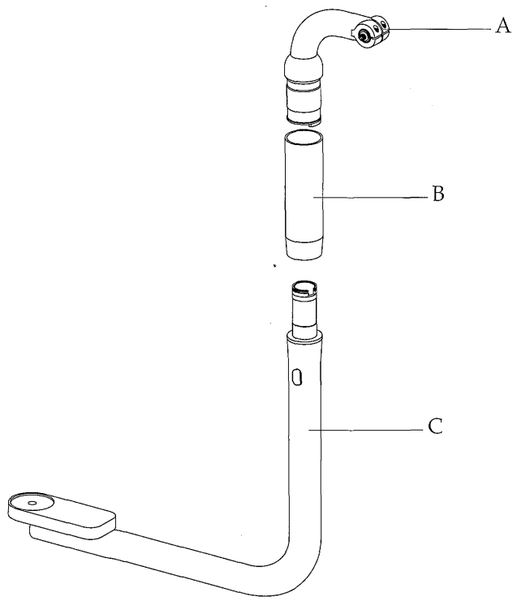


Figure 27. Adding the extender post and monitor-mount arm. (A) monitor-mount arm; (B) extender post; (C) front-mount arm

How to Install the Monitor Bracket

1. Remove the vertical stand base from the back of the monitor and save the hardware.

   If the monitor does not have a vertical stand base installed, hardware will be needed to attach the monitor.

   NOTE: If the mounting holes are recessed, the recessed adapter may need to be used (see Figure 28).

2. Use the saved hardware to attach the monitor on the handle/bracket assembly.
3. Slide the handle/bracket assembly hooks onto the mounting screw.

   Ensure the washers on the mounting screws are on the outside of the hooks (see Figure 28).

4. Tighten the mounting screw.

   Ensure the screws are tight or the friction adjustments will not work.

5. Attach the monitor power supply to the handle/bracket assembly with cable ties, and connect the monitor cables to the monitor (see Figure 29).

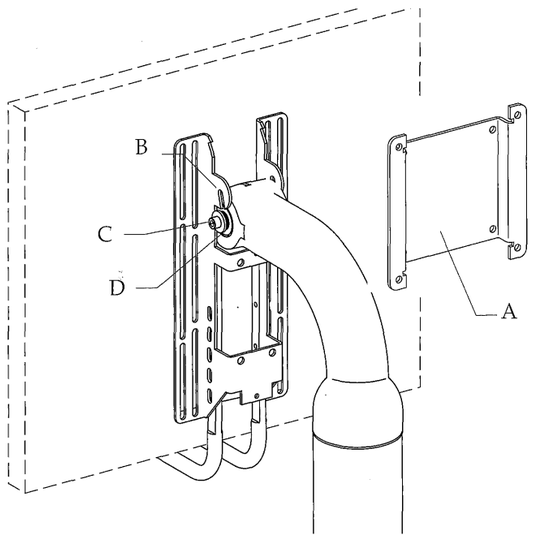


Figure 28. Attaching the monitor. (A) recessed adapter; (B) handle/bracket assembly hooks; (C) mounting screw; (D) washer

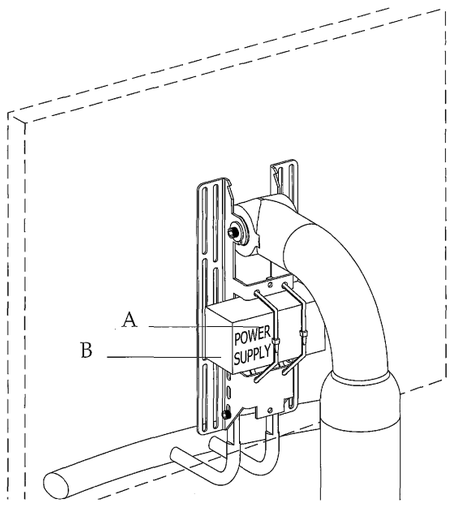


Figure 29. Installing the monitor power supply. (A) cable ties; (B) power supply

How to Adjust the Monitor Mount

There are two main adjustments that can be made to the monitor: the tilt and drift friction.

Tilt Friction

The tilt friction can be adjusted by tightening or loosening the tilt friction adjustment screw screw located on the top of the monitor mount (see Figure 30).

Drift Friction

The drift friction can be adjusted by tightening or loosening the drift adjustment screw located on the top of the monitor mount (see Figure 30).

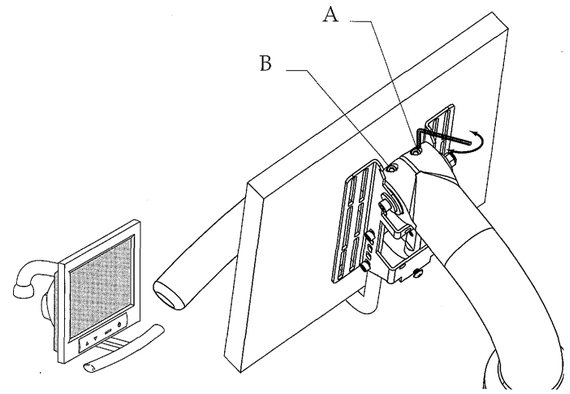


Figure 30. Monitor adjustments. (A) tilt friction adjustment screw; (B) drift friction adjustment screw

4 — Floor Box

The floor box can be installed flush or non-flush mounted to the chair.

NOTE: The floor box may be packaged with the front mount.

How to Install the Floor Box

1. Raise the chair to full base up position and power OFF the chair.

ELECTRICAL WARNING
Failure to power off the chair could result in serious injury.

2. Remove the umbilical hole cover from the pump cover.
3. Install the floor box.

If you are installing a . . .	Then . . .
flush-mounted floor box	1. Trim a small piece of convolute off the outer convolute tubing. 2. Place the floor box over the stubs. 3. Slide the umbilical clip into the floor box frame and lay the convolute tubing into the clip (see Figure 31).
non-flush-mounted floor box	1. Measure the external convolute to match the distance between the chair and the floor box frame. 2. Cut off excess convolute (see Figure 31). 3. Place the floor box over the stubs. 4. Insert the convolute tubing into the frame and place the umbilical clip over the tubing.

4. Secure the floor box to the floor using the four screws.

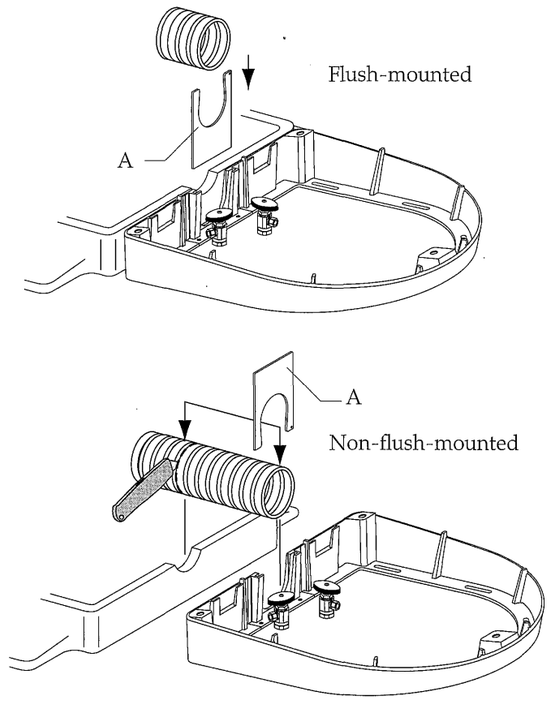


Figure 31. Cutting the convolute tubing and placing the umbilical clip. (A) umbilical clip

How to Install the Chair Air/Water Manifold

The chair air/water manifold is the central connection point for air and water tubing.

The installed modules from the chair air/water manifold will determine what barbs or plugs are removed/replaced.

1. Remove the mounting screw from the chair lift arm.
2. Place the chair air/water manifold locator pin in the hole on the chair lift arm.
3. Secure the manifold with the mounting screw (see Figure 32).

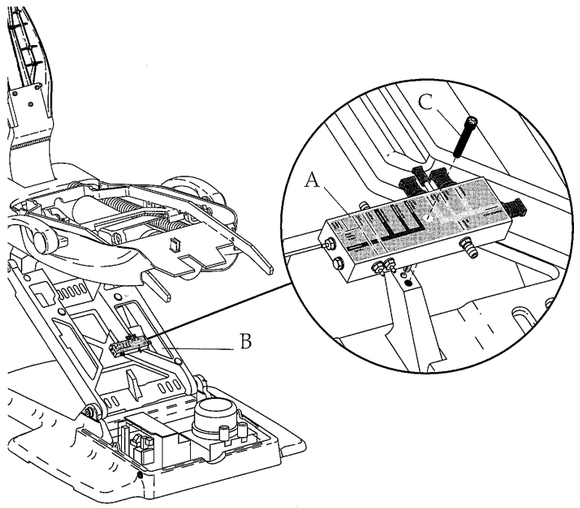


Figure 32. Attaching the chair air/water manifold. (A) chair air/water manifold; (B) chair lift arm; (C) mounting screw

How to Plumb the Water Bottle

Use the decal on the chair air/water manifold for reference when connecting tubing.

1. Trim the blue water and yellow air tubing to the correct length to eliminate tubing strain. Be sure all cuts are square.
2. Attach the blue water tubing to the manifold and secure with the black tubing sleeve (see Figure 33).
3. Attach the yellow air tubing to the manifold.

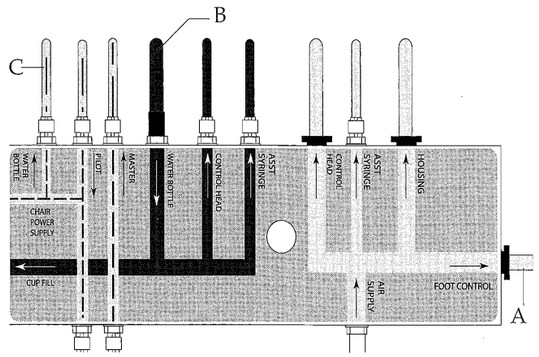


Figure 33. Connecting water bottle tubing to the chair air/water manifold. (A) foot control tubing; (B) water tubing; (C) air tubing

How to Install the Foot Control

1. Route the the foot control tubing underneath the chair lift arm towards the motor pump side (see Figure 34).
2. Connect the foot control tubing to the delivery system tubing and the manifold (see Figure 34).

   Allow the foot control tubing enough length to enter the manifold without pushing the quick-connect's release flange.
3. Place the strain relief bracket over the tubing and tighten the bracket.
4. Secure the foot control tubing to the lift arm with a cable tie.

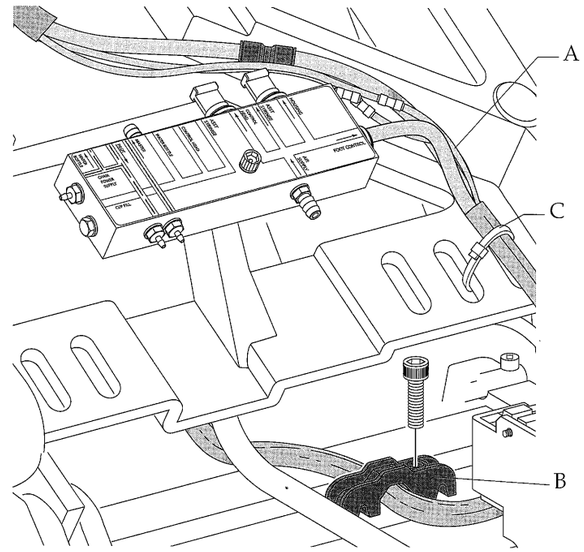


Figure 34. Routing the foot control tubing on the motor pump side. (A) foot control tubing; (B) strain relief bracket; (C) cable tie

How to Plumb the Delivery System

1. Connect the delivery system tubing to the chair air/water manifold, referencing the decal for information.
2. Route the delivery system power cable under the manifold and connect it to the chair power supply.
3. Route the delivery system data line under the manifold and connect it to the chair circuit board. Coil the excess data line.

   NOTE: Route the camera cable through the opening of the chair lift arm.
4. Connect the pilot air from the manifold to the chair power supply.

   NOTE: If installing other equipment (integrated options, or monitor), install the sheath last.
5. Wrap the spiral tubing sheath around the tubing and cables exiting from the front-mount arm (see Figure 35).

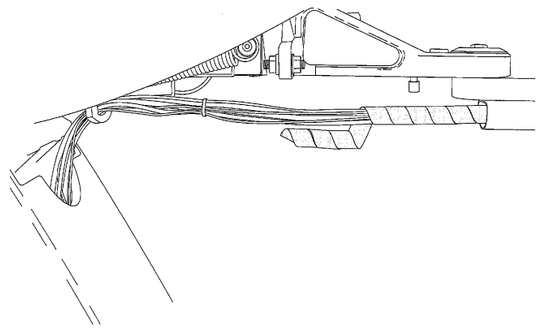


Figure 35. Wrapping the spiral sheath around the tubing and cables.

How to Plumb the Floor Box

1. Route the remaining delivery system tubing through the convolute to the floor box.
2. Purge the manual shutoff valves of debris.
3. Attach the air/filter regulator to the manual air shut-off valve.
4. Trim the master air and supply air and install them to the air/filter regulator in the floor box.

   Leave enough length for servicing and future use (see Figure 36).
5. Trim the pilot air, and install the gauge and pre-regulator assembly.
6. Place the gauge and pre-regulator assembly in the mounting slot of the floor box frame.
7. Fully open the manual air shut-off valve.
8. Plug in the chair power cord.
9. Raise the chair back.

NOTE: Included in the floor box kit is a metal spring clip. Save this clip until the end of the installation, to retain the cords and tubing inside the chair lift arm (see Figure 72).

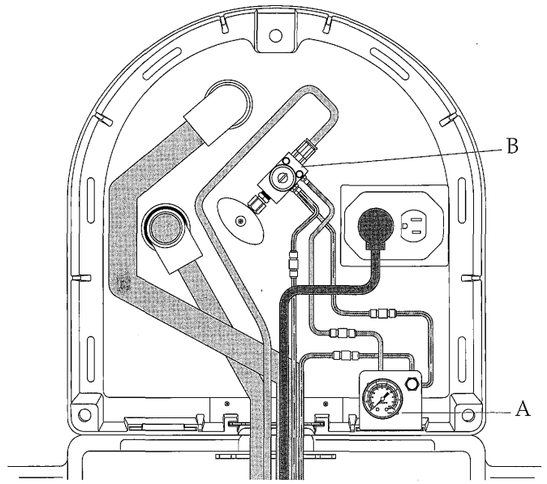


Figure 36. Connecting the air supply. (A) gauge and pre-regulator assembly; (B) air/filter regulator

5 — Support Link

How to Install the Support Link

A support link must be installed to add any of the support side modules. If a delivery system is installed, turn the master toggle Off to exhaust the air before continuing.

Before installing the support link, position the chair in the base up and back up position, and power OFF the chair.

1. Install the leveling bar to the chair swivel with the two dowel pins (see Figure 37).
2. Screw the leveling bar bolt into the support link.

   Do not tighten.
3. Slide the support link onto the swivel and attach it with the top two mounting bolts and washers (see Figure 38).

   Do not tighten.
4. Install the bottom two mounting bolts and washers to the support link (see Figure 38).
5. Remove the chair lift arm cover.

   Rough level the support link.
6. Tighten the leveling bar bolt, while lifting on the support link.

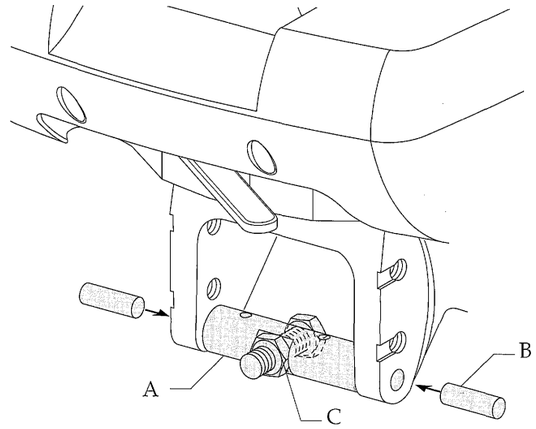


Figure 37. Installing the leveling bar with the dowel pins. (A) leveling bar; (B) dowel pin; (C) leveling bar bolt

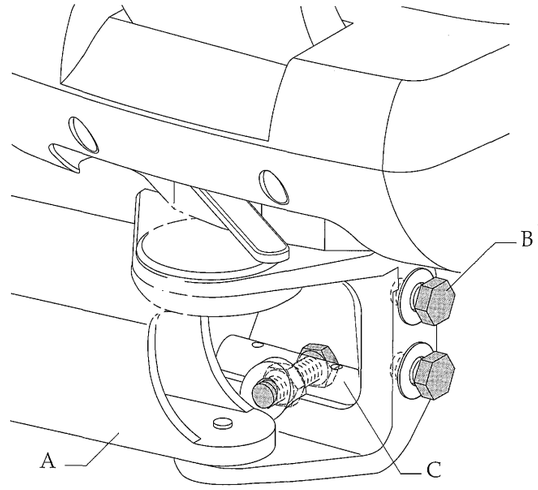


Figure 38. Mounting the support link. (A) support link; (B) mounting bolt; (C) leveling bar;

6 — Lower Support Arm

The lower support arm is used for mounting the support center, cuspidor, dental light and support side monitor mount.

If installed, the assistant's arm must be removed before installing the support arm.

How to Install the Lower Support Arm

1. Remove the tape that attaches the teflon bearing to the lower support arm.
2. Slide the lower support arm over the support link (see Figure 39).
3. Insert the large bearing, into the top of the lower support arm and attach with two screws.

   Do not tighten.
4. While lifting on the lower support arm, insert the small bearing into the underside of the lower support arm and secure it with the short screw.
5. If an assistant's arm is not being installed, tighten the screws in the large bearing.
6. Tighten the lower support arm tension adjustment screw to adjust arm rotation tension.

   NOTE: This adjustment must be completed before installing a cuspidor, dental light or monitor mount.
7. If not installing an assistant's arm, install the bearing cover with a bearing cover screw and washer.

Go to *How to Add the Limit Switch Assembly* if not installing an assistant's arm.

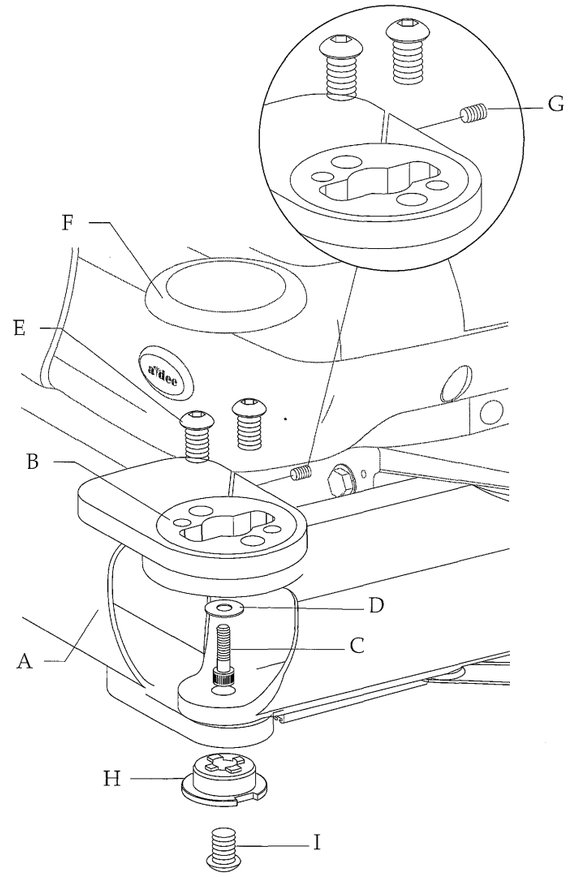


Figure 39. Mounting the lower support arm.
(A) lower support arm; (B) large bearing; (C) bearing cover screw; (D) washer; (E) screw; (F) bearing cover; (G) tension adjustment screw; (H) small bearing; (I) short screw

7 — Assistant's Instrumentation

Assistant's instrumentation can be mounted stand alone, or with additional side support modules. If installing an assistant's arm only, a support link should be installed. A lower support arm should be installed to accommodate assistant's instrumentation with additional support side modules.

How to Add an Assistant's Instrumentation Arm

1. Route the assistant's arm tubing and cables through the large bearing and support arm.
2. Secure the assistant's arm to the support link using the two screws (see Figure 40).
3. Install the small bearing cap underneath the support link and the lower support arm.
4. Secure with the short screw.
5. Lube the vacuum pipe O-ring, and assemble the vacuum pipe to the assistant's arm with two screws (see Figure 40).
6. Lube the solids collector O-ring. Align the grooves in the connector. Push down as you turn the collector to engage the vacuum pipe (see Figure 41).
7. Attach the assistant's instrumentation to the connectors and place the instruments in their holders.

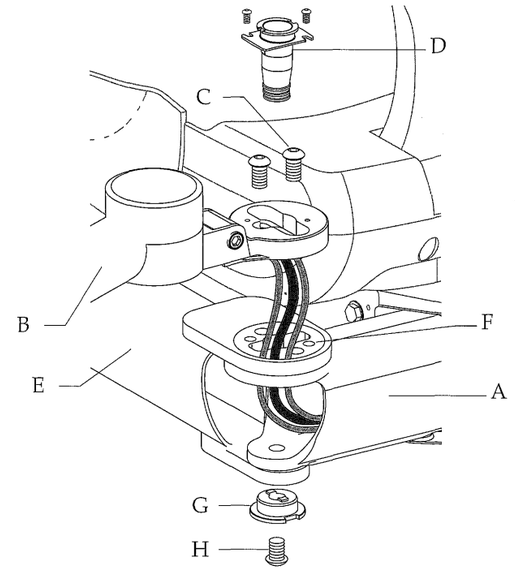


Figure 40. Installing the assistant's arm assembly with a lower support arm. (A) support link; (B) assistant's arm; (C) screw; (D) vacuum pipe; (E) lower support arm; (F) large bearing; (G) small bearing cap; (H) short screw

How to Connect the Syringe

1. Route the tubing down through the chair lift arm.
2. Exhaust the air from the system then, remove appropriate plugs from the chair air/water manifold.
3. Trim the tubing to the correct length and then, attach the syringe tubing to the manifold.
4. Add the pinch block to the syringe tubing.

   Be sure to place the pinch block in a position that does not interfere with the chair lift arm cover.
5. Connect the power cord to the power supply.
6. Connect the data line to the chair circuit board.

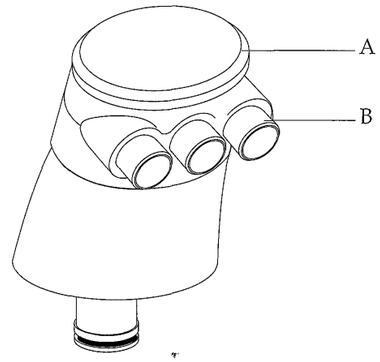


Figure 41. Installing the solids collector. (A) cap; (B) connector

How to Install a Master Toggle

If installing an assistant's arm without a delivery system, a master toggle needs to be installed in the floor box.

1. Drill a 15/32" diameter hole in the floor box frame approximately 2 1/2" forward from the chair and 1" down from the top of the frame.
2. Install the master toggle assembly using a nut on each side of the frame and a washer between the nut and the frame on the outside (see Figure 42).
3. Disconnect the master air frame from the tee on the air filter/regulator.

   This will not be reused.
4. Attach the master air from the toggle to the master air tee (see Figures 43 and 44).
5. Attach the pilot air from the toggle to the chair air/water manifold, and ensure the control head position is plugged.

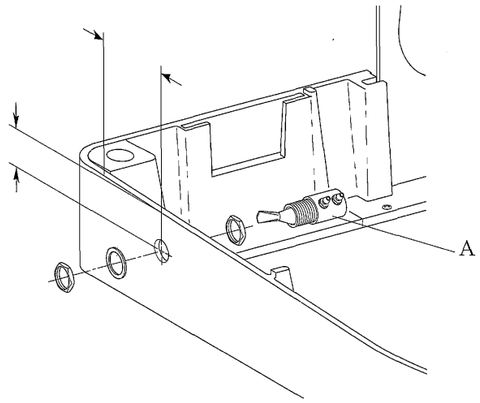


Figure 42. Master toggle location. (A) master toggle

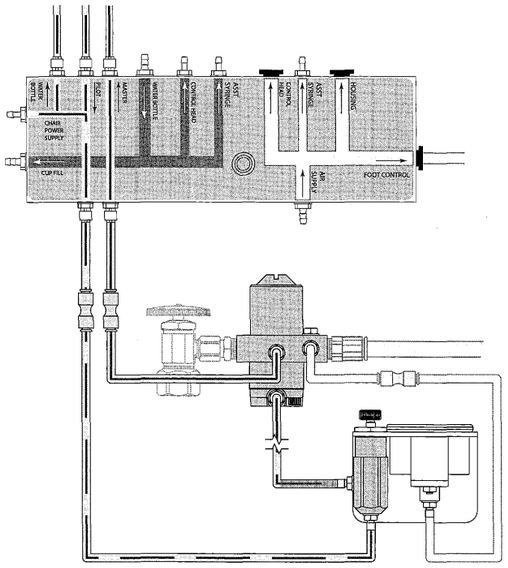


Figure 43. Before connecting the master toggle.

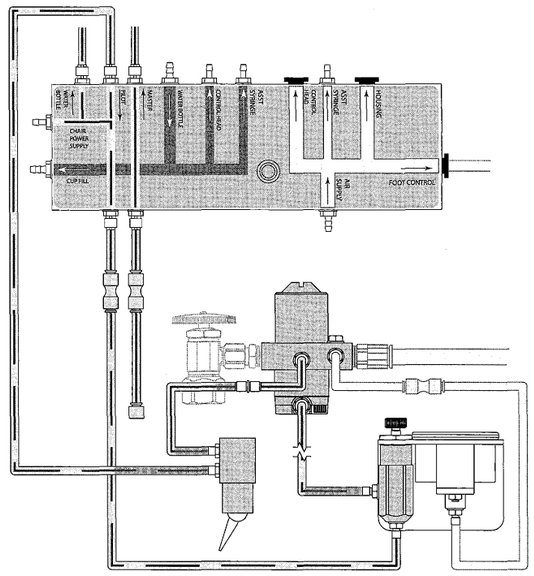


Figure 44. Connecting the master toggle to the chair air/water manifold and the air filter/regulator.

How to Plumb the Assistant's Vacuum Line

1. Secure the support link end of the vacuum tubing to the vacuum pipe.
2. Route the tubing and cables, down the power supply side of the chair lift arm, under the chair air/water manifold, and to the floor box.
3. Connect the vacuum line to the floor box vacuum stub using the appropriate adapter from the kit. To prevent leaking, apply silicone RTV adhesive (not provided) to the vacuum connection before installing the tubing.

How to Add the Limit Switch Assembly

The limit switch assembly ships configured with short tubing to accommodate assistant's instrumentation only.

Assistant's Instrumentation Only

1. Attach tubing guide to the support link, flush with the end of the link.
2. Feed the limit switch tubing through the tubing guide.
3. Mount the limit switch actuator to the support link with two stand-off screws (see Figure 45).
4. Remove the jumper from the chair base stop switch, and attach the limit switch connector to the base stop switch.

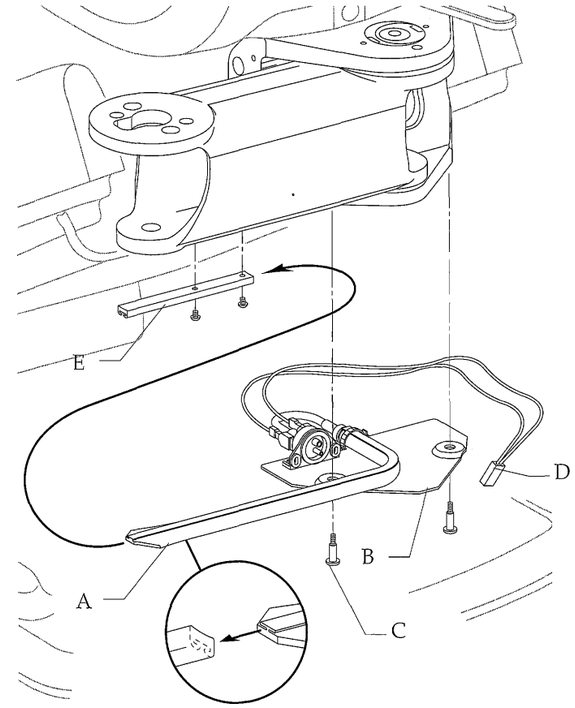


Figure 45. Feeding the limit switch tubing through the guide. (A) limit switch tubing; (B) limit switch actuator; (C) stand-off screw; (D) limit switch connector; (E) tubing guide

Lower Support Arm

1. Remove the tubing guide from the support link, rotate it 180°, and reattach it to the support link.
2. Without cutting the cable tie, remove the short tubing from the limit switch actuator barb.
3. Feed the long tubing from the kit, through the tubing guide, under the cable tie and attach to the limit switch actuator barb.
4. Mount the limit switch actuator to the support link with two stand-off screws (see Figure 46).
5. Remove the jumper from the chair base stop switch, and attach the limit switch connector to the base stop switch.
6. Mount the small actuator plate under the lower support arm and support link elbow with two stand-off screws.

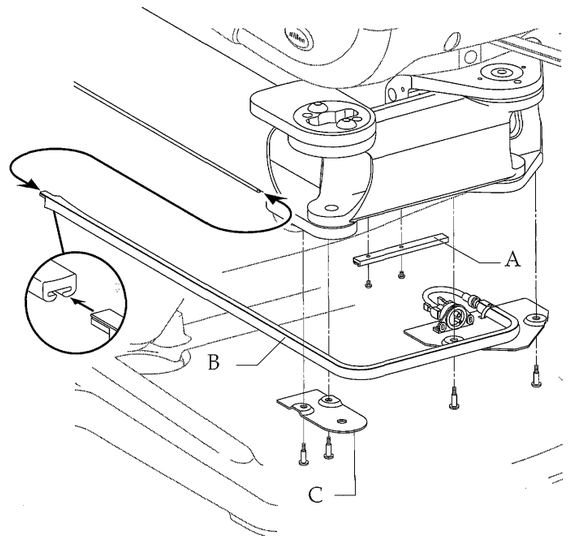


Figure 46. Mounting the limit switch actuator to the support link. (A) tubing guide; (B) limit switch tubing; (C) small actuator plate

8 — Support Center and Cuspidor

How to Add the Support Center and Cuspidor

The support center and cuspidor come assembled together.

If installing a cuspidor without a delivery system or assistant's instrumentation, a master toggle needs to be installed in the floor box, see *How to Install a Master Toggle*.

Follow these steps to install the support center and cuspidor to the lower support arm.

1. Add the rotation stop to the lower support arm post with the tab oriented over the opening in the arm (see Figure 47).

   The tab should fit inside the arm opening.
2. Loosen the rotation stop screw to slide the rotation stop over the post.
3. Tighten the rotation stop screw.
4. Remove the side covers from the support center.

   NOTE: If installing a light or monitor to a support center, knock-out the mounting hole.
5. Position the support center and cuspidor over the post.

   NOTE: The support center needs to be in line with the lower support arm when assembled to engage the rotation stop properly.
6. Route the tubing into the arm.
7. Apply downward pressure to the support center until the hooks on the bottom of it engage the rotation stop.

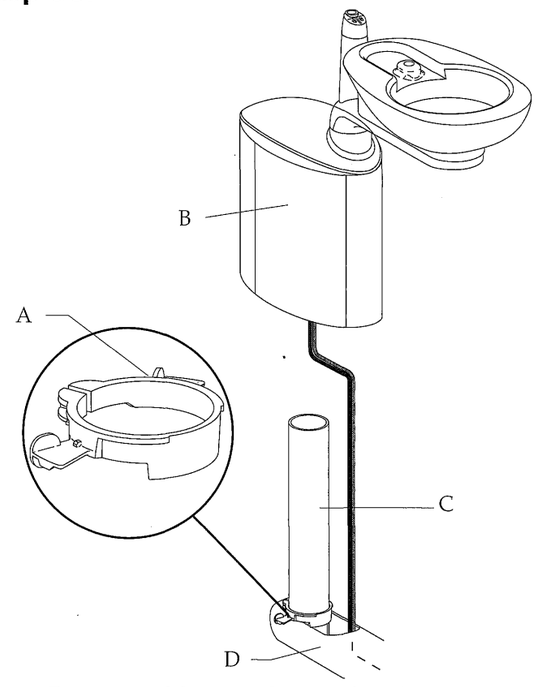


Figure 47. Mounting the cuspidor. (A) rotation stop; (B) side cover; (C) lower support arm post; (D) lower support arm

How to Install the Self-Contained Water Bottle to the Support Center

1. Disconnect the receptacle portion of the water bottle from the cap housing and discard the cap housing.
2. Feed the tubing bundle through the hole in the support center frame, on the water manifold side.
3. Route the tubing through the arm, support link and down the chair lift arm (see Figure 48).
4. Connect the tubing to the chair air/water manifold.
5. Attach the water bottle receptacle to the support center frame using two screws.
6. Lube the O-ring on the receptacle and attach the water bottle.

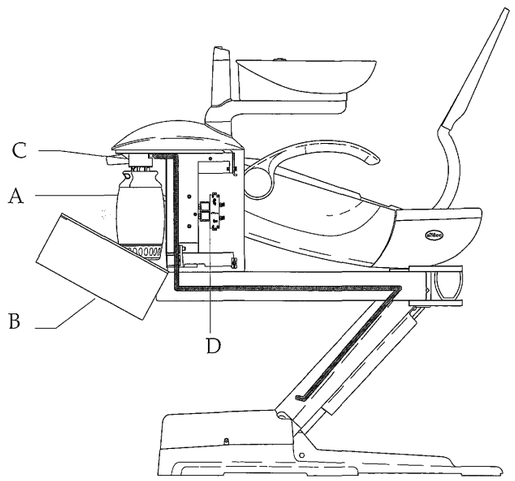


Figure 48. Installing the water bottle to the support center. (A) water bottle; (B) water bottle cover; (C) receptacle; (D) water manifold

How to Plumb the Cuspidor

1. Route the cuspidor tubing down the motor pump side of the chair lift arm and under the chair air/water manifold.
2. Remove the cup fill plug from the manifold and replace it with a barb and washer.
3. Trim and attach the cup fill (3/8" blue) tubing to the cup fill barb (see Figure 49). Secure with the black tubing sleeve.

   NOTE: To avoid kinking, route the tubing below the manifold.

4. Connect the power cable to the chair power supply and the data line to the chair circuit board.
5. Route the cuspidor drain and the bowl rinse tubing through the convolute to the floor box.
6. Trim the drain tube, attach the adapter, and place it on the drain.

   To prevent leaking, apply silicone RTV adhesive (not supplied), to the connector before installing.

7. Punch out the top of the drain adapter.

   NOTE: Some building code authorities will not approve an open gravity drain.

8. Cut the air/filter regulator pilot air tubing and attach it to the teed barb on the water/filter regulator.
9. Attach the bowl rinse tubing to the water/filter regulator and hook up the water/filter regulator to the water shutoff valve.
10. Lube the cuspidor spouts with silicone and install them to the cuspidor.

    NOTE: The cup fill spout does not rotate, it does need to be oriented in the cuspidor.

11. Add the bowl screen to the cuspidor bowl.

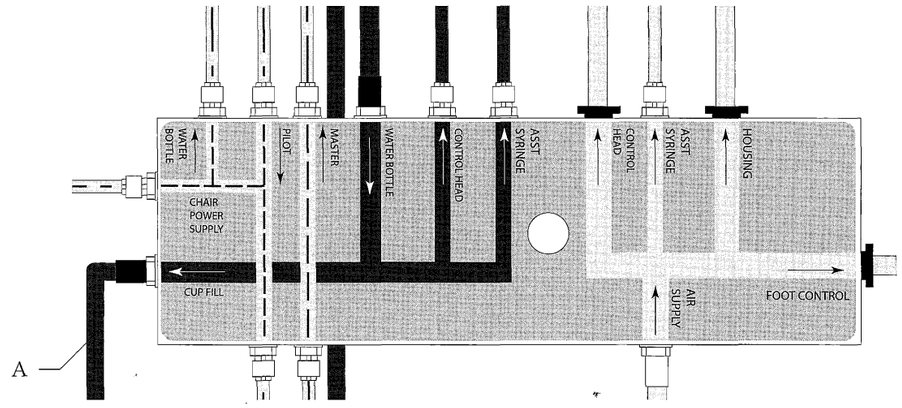


Figure 49. Cuspidor cup fill tubing attaching to the chair air/water manifold. (A) cuspidor cup fill tubing

9 — Support Side Monitor Mount

The support side monitor mount can be installed directly on the lower support arm or with a support center, and can accommodate most 15" (381 mm), 17" (432 mm), and 19" (483 mm) flat-panel monitors.

- If you are installing a support side monitor to a unit with an existing light, remove the light and reinstall it once the monitor installation is complete.
- If you are installing a monitor without a support center, go to *How to Attach the Post*.
- If you are installing a monitor mount with a support center, perform these steps before attaching the post.

How to Install the Monitor-Mount Post

- Unscrew the mounting screw and remove the end cap from the lower support arm (see Figure 50).
- Insert the trim ring into the hole making sure to align the notch.

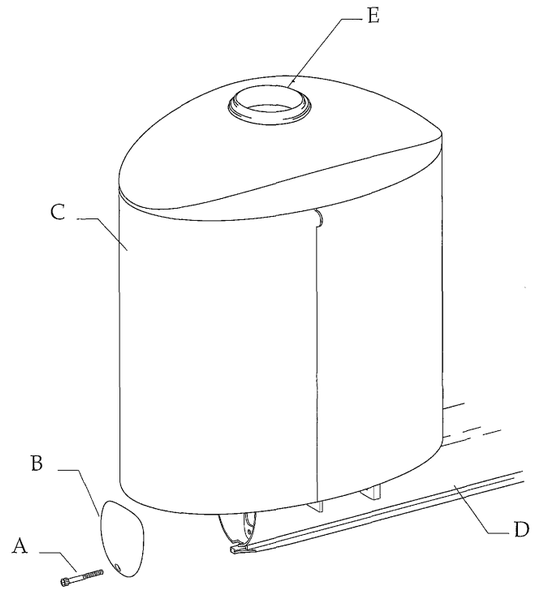


Figure 50. Unscrewing the mounting screw. (A) mounting screw; (B) end cap; (C) support center cover; (D) lower support arm; (E) trim ring

How to Attach the Post

1. Insert the monitor-mount post inside the lower support arm post, and line up the slot with the tab inside the post hole.
2. Drop the rotation stop into the monitor-mount post.

   NOTE: If a support center is not installed, slide the lower support arm cover over the monitor-mount post.

3. Insert the rigid monitor arm into the monitor-mount post and rotate it to engage the rotation stop.

How to Route the Monitor Cables

1. Route the monitor cables and video cable through the posts and down through the chair lift arm.

   Leave approximately 18"(457 mm) of cable hanging free on the monitor end of the monitor-mount arm. Video cable not supplied (see Figure 51).

2. Connect the cables to the appropriate video source, and the monitor power cable to the chair power supply.

   NOTE: If using with an A-dec intraoral camera, route the camera video cable from the delivery system umbilical up to the monitor.

3. Attach the cap to the rigid monitor arm.

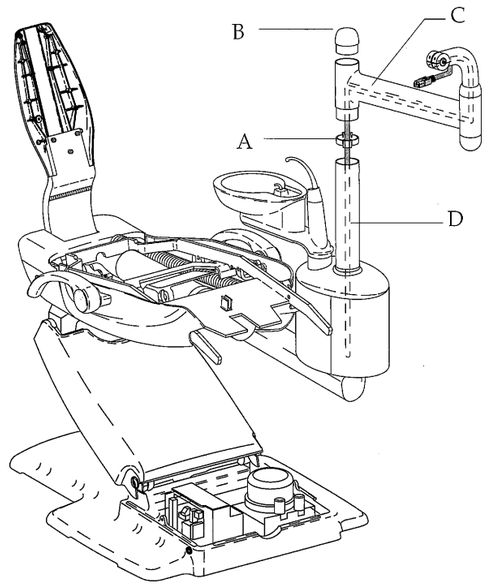


Figure 51. Attaching the post and placing the rotation stop into the support center. (A) rotation stop; (B) cap; (C) rigid monitor arm; (D) monitor-mount post

How to Install the Monitor Bracket

1. Remove the vertical stand base from the back of the monitor and save the hardware.

   If the monitor does not have a vertical stand base installed, hardware will be needed to attach the monitor.

   NOTE: If the mounting holes are recessed, the recessed adapter may need to be used.

2. Use the saved hardware to attach the monitor on the handle/bracket assembly.
3. Slide the handle/bracket assembly hooks onto the mounting screw.

   Ensure the washers on the mounting screws are on the outside of the hooks (see Figure 52).

4. Tighten the mounting screw.

   Ensure the screws are tight or the friction adjustments will not work.

5. Attach the monitor power supply to the handle/bracket assembly with cable ties, and connect the monitor cables to the monitor (see Figure 53).

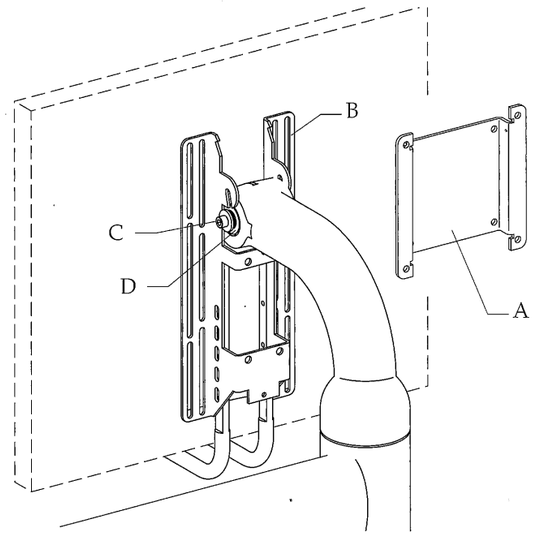


Figure 52. Attaching the monitor. (A) recessed adapter; (B) handle/bracket assembly hooks; (C) mounting screw; (D) washer

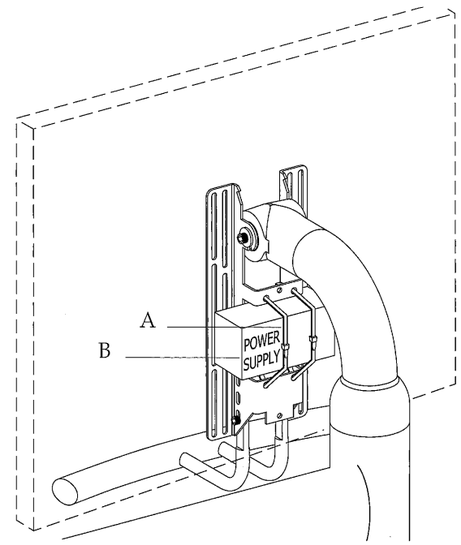


Figure 53. Installing the monitor power supply. (A) cable ties; (B) power supply

How to Adjust the Monitor Mount

There are two adjustments that can be made to the monitor: the tilt and drift friction.

Tilt Friction

The tilt friction can be adjusted by tightening or loosening the tilt friction adjustment screw screw located on the top of the monitor mount (see Figure 54).

Drift Friction

The drift friction can be adjusted by tightening or loosening the drift adjustment screw located on the top of the monitor mount (see Figure 54).

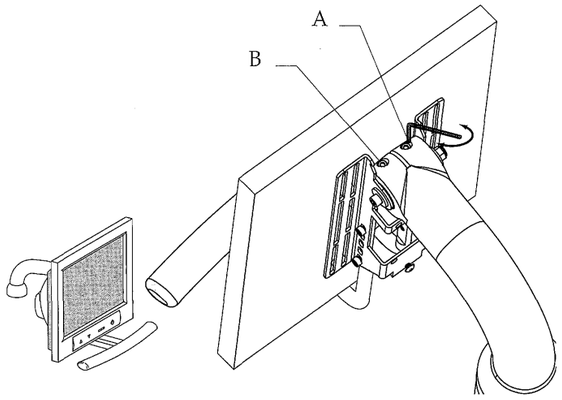


Figure 54. Monitor adjustments. (A) tilt friction adjustment screw; (B) drift friction adjustment screw

10 — Dental Light

There are three possible configurations for a dental light on the chair:

- support center
- support center with a monitor mount
- dental light on a lower support arm only.

CAUTION: Power OFF the chair when making electrical connections or working near electrical areas.

How to Install the Dental Light

1. Remove the end cap in the support arm.
2. Remove the screw from the dental light straight post.
3. Insert the straight post into the support arm post and attach it to the lower support arm with the screw.

   If installing a dental light only, add the support arm post cover.
4. Install the light post support (see Figures 55-57).
5. Add the post adapter to the straight post.

   If installing a light on a support center add the trim ring.
6. Use Lubriplate to lube the flexarm knuckle and attach it to the light rigid arm, lining up the flexarm retainer with the hole in the light rigid arm, and securing the flexarm retainer with the screw.

   NOTE: Installing the screw all the way in the hole locks the flexarm retainer. You may need to back out the screw.
7. Lube the hub of the light rigid arm and route the light cable through the post adapter as you install the rigid arm.
8. Pull the cables out the end of the lower support arm.

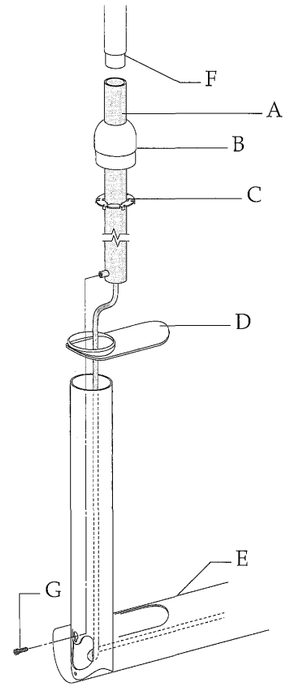


Figure 55. Installing the dental light on the lower support arm. (A) straight post; (B) post adapter; (C) light post support; (D) lower support arm post cover; (E) lower support arm; (F) light rigid arm; (G) screw

9. Connect the upper light cable and lower light cable, then route the lower light cable through the lower support arm to the chair power supply.

CAUTION: Pulling hard on the cables may loosen one or more pins from the cable's red connectors.

10. Connect the cable to the power supply.
11. Insert the lower support arm limit switch tubing into the notch in the lower support arm, and attach the end cap to the lower support arm.

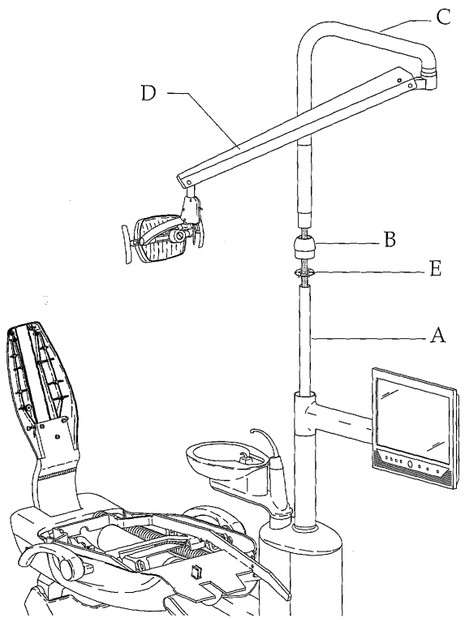


Figure 56. Installing the dental light on the support center with a monitor mount. (A) straight post; (B) post adapter; (C) light rigid arm; (D) flexarm; (E) light post support

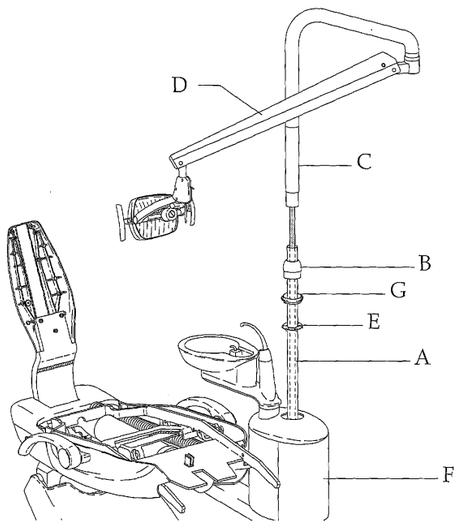


Figure 57. Mounting the light on a support center. (A) straight post; (B) post adapter; (C) light rigid arm; (D) flexarm; (E) light post support; (F) support center; (G) trim ring

Amalgam Separator Housing

Instructions for installing the amalgam separator inside the housing are provided in the installation kit.

How to Install the Amalgam Separator Housing

1. Unscrew the support center nose cover, remove the covers, and set the screw aside (see Figure 58).
2. Remove the top screw from the support center frame and discard.
3. Attach the amalgam separator housing to the support center using two bolts and washers.
4. Add the nut to the bottom bolt, and tighten both bolts (see Figure 59).
5. Attach the nose cover using the reserved screw.
6. Replace all covers.

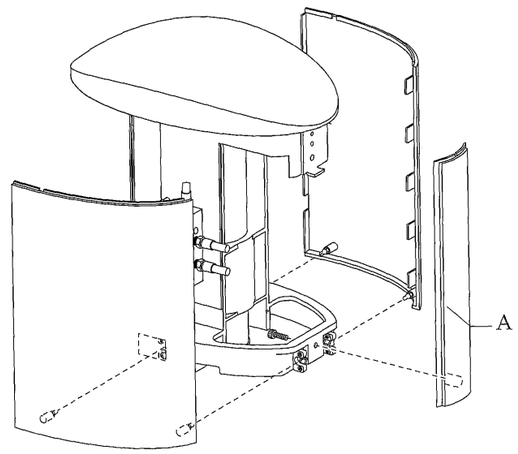


Figure 58. Removing the support center covers. (A) nose cover

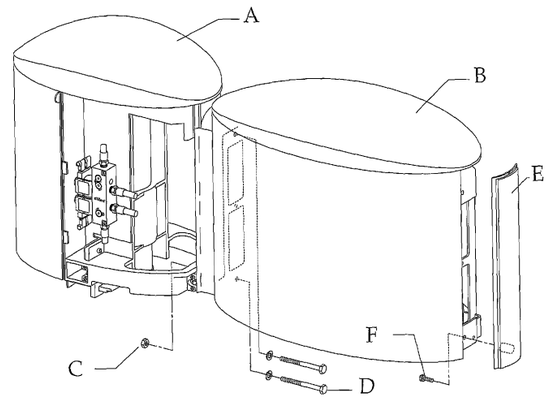


Figure 59. Attaching the amalgam separator housing. (A) support center; (B) amalgam separator housing; (C) nut; (D) housing screw; (E) nose cover; (F) nose cover screw

Final Leveling and Adjustments

Make sure all modules have been installed before leveling and making final adjustments. Adjust the chair to the operating position.

Chair

How to Set the Chair Swivel Tension

If the chair swivels left or right with the brake engaged, or if it is difficult to move with the brake disengaged, adjust the swivel brake tension. To adjust the tension, use a hex key and turn the tension adjustment screw clockwise to increase brake friction or counterclockwise to decrease brake friction.

How to Adjust the Headrest Drift Tension

If the headrest drifts downward, or if it is difficult to move up or down, the glide bar tension may need to be adjusted.

To adjust the tension, use a hex key and turn the tension adjustment screw clockwise to increase friction or counterclockwise to decrease friction (see Figure 60).

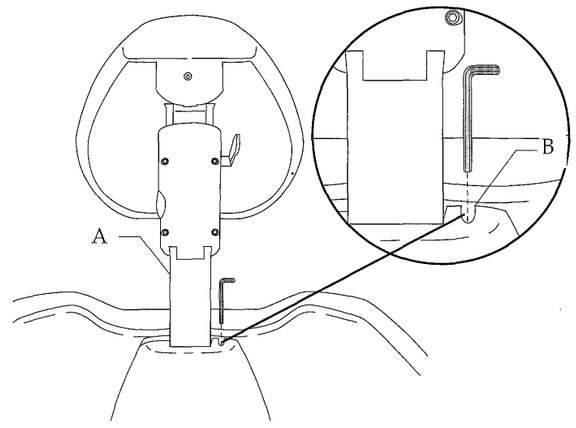


Figure 60. Adjustment of the headrest drift. (A) glide bar; (B) tension screw

Support Side

How to Level the Support Side Modules

1. Loosen the four mounting bolts on the support link (see Figure 61).
2. Loosen the locking nut.

   NOTE: You may have to remove the limit switch.

3. Adjust the leveling bar bolt until the lower support arm is level.
4. Tighten the locking nut against the leveling bar.
5. Tighten the four mounting bolts as tight as possible (65 ft lb of torque).

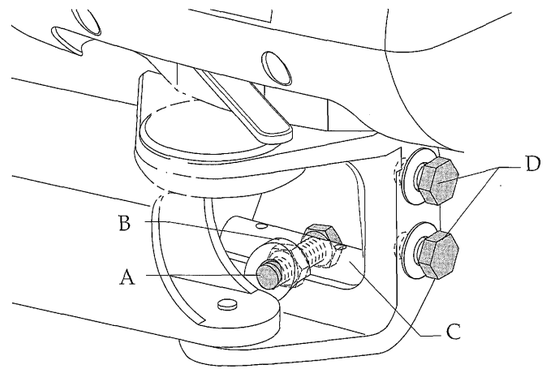


Figure 61. Leveling the support system side modules. (A) leveling bolt; (B) locking nut; (C) leveling bar; (D) mounting bolts

Front Mount

Position all front-mount modules, e.g., delivery system, flexarm, tray holder assemblies to align with the centerline of the chair.

How to Level the Front Mount

1. Use the bubble level to determine when the correct front mount adjustments have been made.
2. Loosen the stabilizing screws and flanged nuts.
3. Adjust the leveling cam for side-to-side leveling.
4. Use the leveling bolts to adjust the front-to-back leveling adjusting an equal amount on both bolts.
5. Securely tighten the leveling cam, so it is parallel to the bar on the casting.
6. When all of the front mount leveling adjustments have been made, tighten the stabilizing screws until the screws make contact with the casting (see Figure 62).

   NOTE: You may need to lower the back to improve access.

7. Securely tighten the flanged nuts.

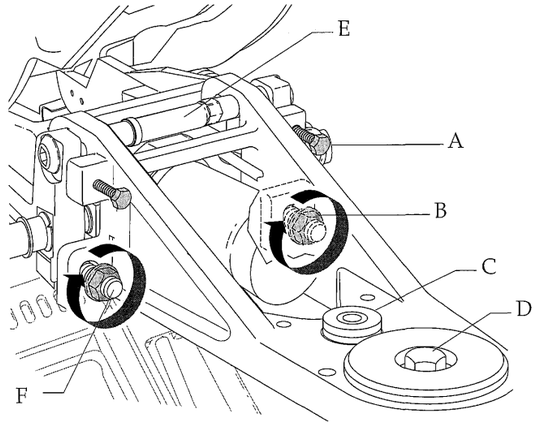


Figure 62. Leveling the front-mount arm. (A) stabilizing screw; (B) flanged nuts; (C) bubble level; (D) rotation bolt; (E) leveling cam; (F) leveling bolt

Delivery System

How to Adjust the Flexarm Counterbalance

1. Adjust the flexarm spring rod with a 7/16" open-ended wrench or ratchet, until the delivery system maintains position with the master toggle turned off.
   - Loosen if delivery system drifts up.
   - Tighten if delivery system drifts down.
2. Adjust the rotation tension on the flexarm by tightening the setscrew (see Figure 63).
3. Replace the covers.

How to Level the Delivery System

Place a level on the structural platform inside the control head, and then adjust the front-to-back level and side-to-side level.

Adjusting Front-to-Back Level

If installed, remove the flexarm front knuckle covers and position the delivery system in line with the flexarm (see Figure 64).

At the knuckle, tighten or loosen the adjustment screw with a 1/16" hex key, until level.

Support the weight of the delivery system while making adjustments.

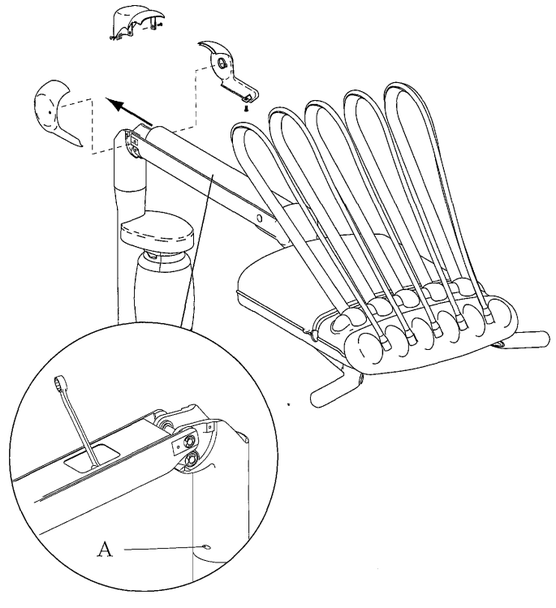


Figure 63. Adjusting the flexarm counterbalance. (A) setscrew

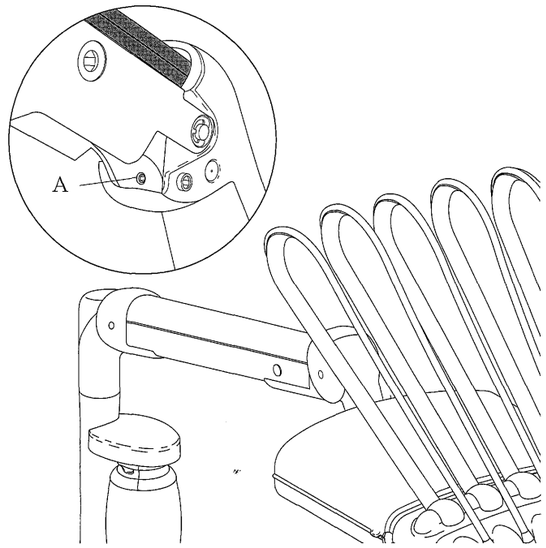


Figure 64. Adjusting the front-to-back level. (A) flexarm adjustment screw

Adjusting the Side-to-Side Level

Alternately, tighten or loosen the two leveling screws on the underside of the delivery system until level (see Figure 65). Tighten both screws when complete.

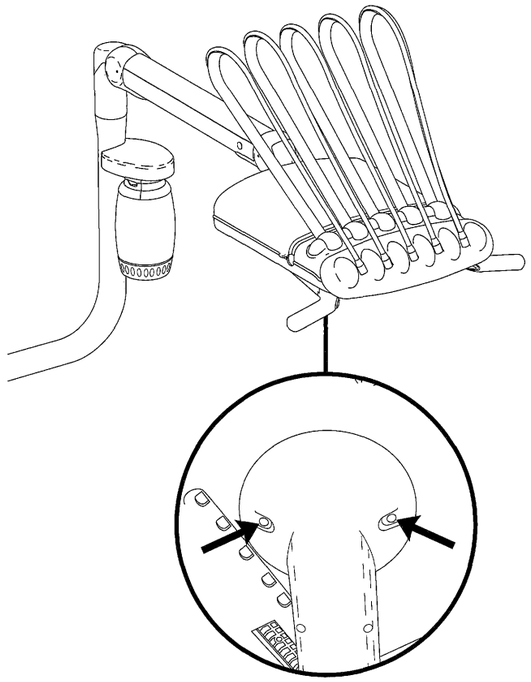


Figure 65. Adjusting the side-to-side level.

How to Adjust the Delivery System Rotation

Tighten or loosen the friction adjustment screw located in the center of the delivery system structural platform (see Figure 66).

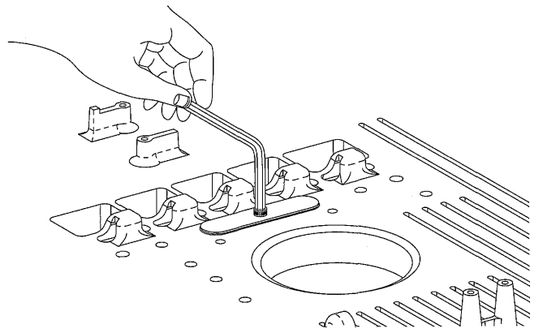


Figure 66. Adjusting the delivery system rotation.

How to Adjust the Water Coolant

1. Flip the wet/dry toggle on the foot control to the ON position.
2. Install a bur into the handpiece and activate the position.
3. Fully depress the foot control.
4. Turn the water coolant adjustment key to adjust the flow to fit the operator's needs (see Figure 67).
5. Repeat steps two through four for each wet handpiece.

How to Adjust the Air Coolant

Adjusting the air coolant for one handpiece sets it for all of the positions.

1. Flip the wet/dry toggle on the foot control to the ON position.
2. Install a bur into a handpiece and activate the position.
3. Fully depress the foot control.
4. Adjust the handpiece air coolant adjustment key to create a cooling mist at the bur.

CAUTION: Do not turn the adjustment key counterclockwise beyond where the air coolant no longer increases. The stem may come completely out.

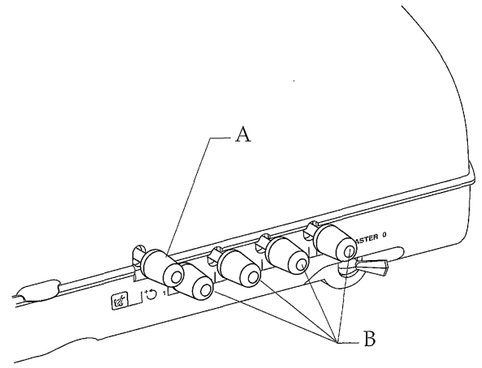


Figure 67. Handpiece adjustment keys. (A) air coolant; (B) water coolant

How to Adjust the Drive Air

1. Use a handpiece pressure gauge to adjust the drive air for each handpiece tubing.
2. Install a bur into the handpiece and activate the position.
3. Fully depress the foot control.
4. Adjust the drive air flow (controls are on the top of the control block).

Air turbine handpieces should be set to 40 psi. EA-50LT electric micromotors (controller) should be set at a minimum of 60 psi.

NOTE: There is a digital gauge in the delivery system control head that reads drive air pressure only at the control block. For accurate handpiece pressure settings use a pressure gauge at the end of the handpiece tubing.

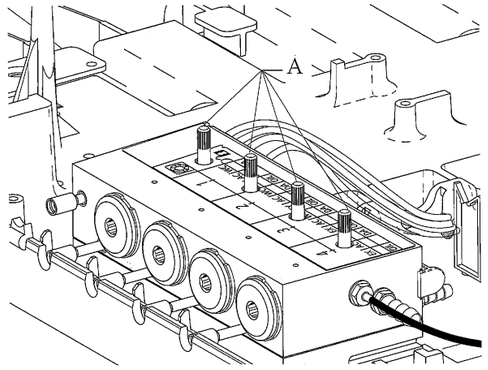


Figure 68. Drive air adjustment controls.
(A) drive air

Tray Holder Assemblies

How to Level the Tray Holder Assemblies

The tray holder assembly can be adjusted front-to-back (see Figure 69) or side-to-side (see Figure 70). Position the tray so it is directly in front of the control head.

1. Loosen one of the tray adjustment screws under the delivery system.
2. Tighten the opposite screw until the satisfactory position is reached.
3. Tighten both screws.

Front-Mounted Tray Holder

Adjust the tray holder rotation tension by tightening or loosening the hex bolt (see Figure 70).

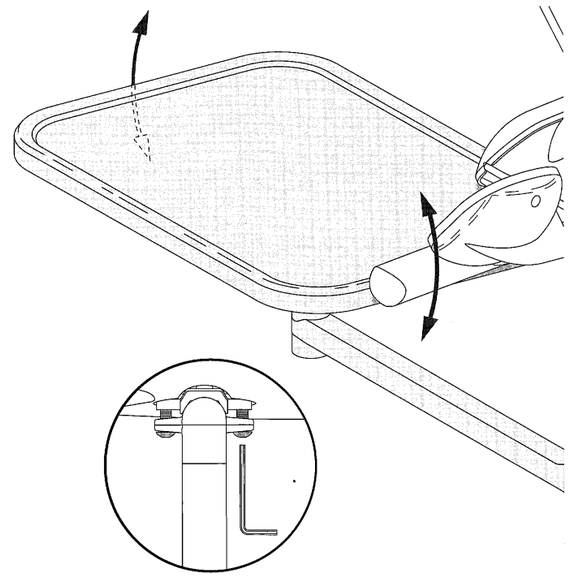


Figure 69. Adjusting the tray front-to-back.

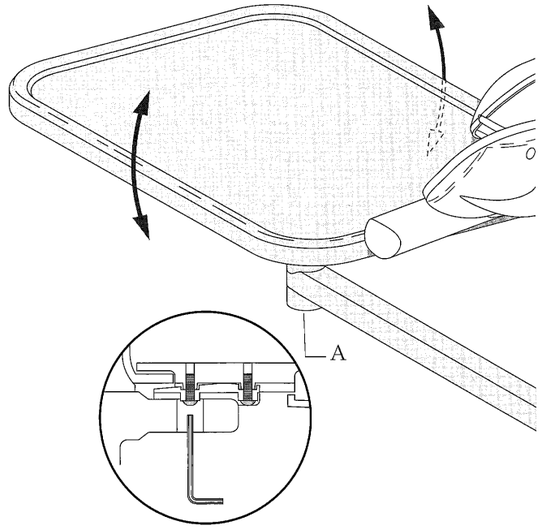


Figure 70. Adjusting the tray side-to-side.
(A) hex bolt

Support-Side Tray Holder

1. Locate the small hole in the tray holder hub.
2. Insert a 5/32" hex key through the hole.
3. Rotate the tray support arm to adjust the tension.

   Clockwise to increase tension

   Counterclockwise to decrease tension

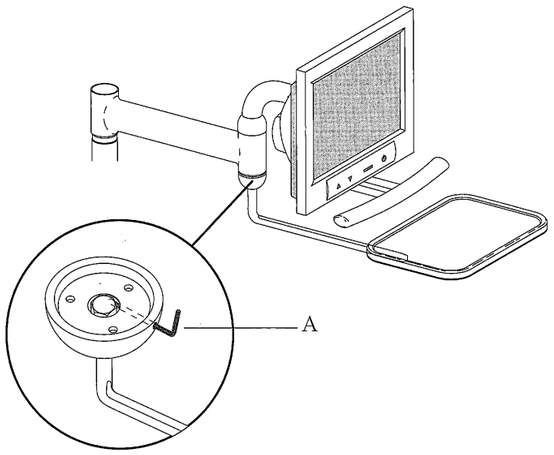


Figure 71. Adjusting the tension on a support-side tray holder. (A) 5/32" hex key

Test the Chair and Modules

Test the unit functions and any settings for each module installed before adding the covers.

How to Attach the Chair and Floor Box Covers

1. Raise the chair to full base up.
2. Attach the stop plate cover to the lift arm casting pins, see Figure 72.
3. Snap the chair back cover into place if there is no support system mounted to the chair.
4. Attach the metal spring clip to the lift arm casting, to retain all the tubing and cables.

   Pressing the center of the spring clip makes it easier to install.
5. Attach the lift arm cover by snapping onto the casting tab.
6. Attach the pump cover using the two screws.
7. Snap the floor box cover into place.

How to Attach the Front-Mount Covers

1. Attach the post cover using two screws (see Figure 73).
2. Position the knuckle covers.
3. Secure the covers using the screw.
4. Slide the chair underside cover into the tubing guide (see Figure 74).
5. Snap the cover into place on the chair upper structure.

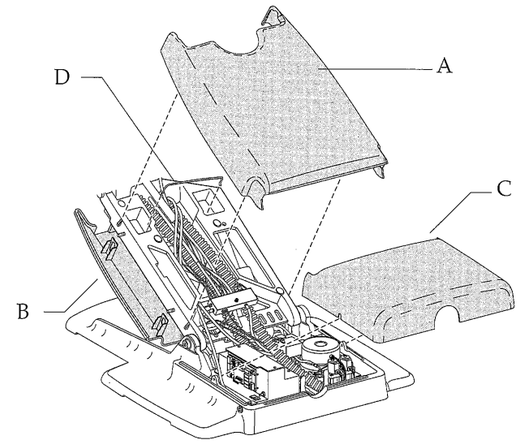


Figure 72. Attaching the chair covers. (A) lift arm cover; (B) stop plate cover; (C) motor pump cover; (D) metal spring clip

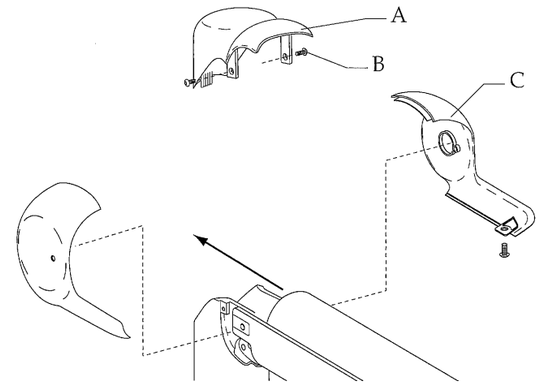


Figure 73. Attaching covers. (A) post cover; (B) screws; (C) knuckle covers

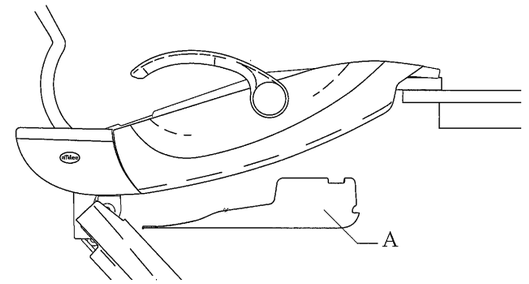


Figure 74. Attaching the cover under the upper structure. (A) delivery mount cover

How to Attach the Monitor Cover

1. Place the back monitor cover under the monitor-mount post, see Figure 75.
2. Secure the monitor back cover to the handle/bracket assembly with two screws.
3. Install the snap-on cover.

If a monitor is being installed on the support side and a light is not being added to the system, attach the post cover.

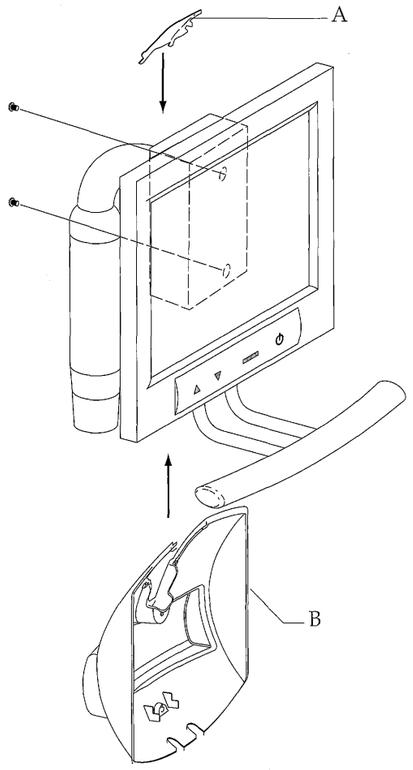


Figure 75. Installing the front-mount monitor covers. (A) snap-on cover; (B) back monitor cover

How to Attach the Support System Covers

1. Attach the support link covers with the screws provided, see Figure 76.
2. Attach the support link bearing cap cover with the locking knob.

   Tighten the locking knob with the support link in a right angle position to the chair.
3. If not already installed, attach the lower support arm end cap, with the limit switch tubing end inserted through the notch in the lower support arm.
4. Install the left/right support link cover.
5. Snap on the support center covers.

If installing a support link with assistant's instrumentation, attach the two support link end caps.

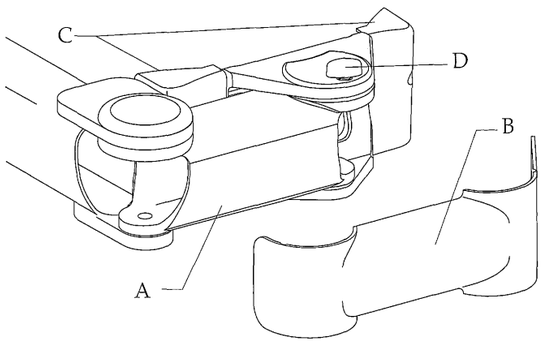


Figure 76. Attaching the support link cover. (A) support link; (B) support link cover; (C) left/right support link cover; (D) support link bearing cap cover and locking knob

How to Add the Back Upholstery

Place the chair in the back up and base up position. To attach the back upholstery, place the key holes on the cushion over the large fastener heads then push down until it snaps into position (see Figure 77).

NOTE: Do not loosen the large head fasteners.

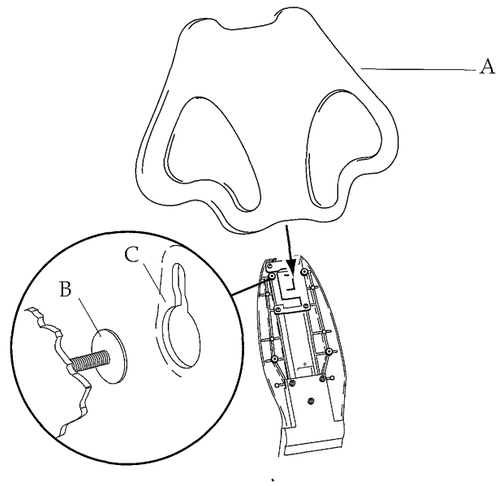


Figure 77. Attach the back upholstery. (A) back upholstery; (B) large head fastener; (C) key holes

How to Add the Headrest Upholstery

The screws and O-rings in the headrest plate prevent it from sliding off and releasing the headrest tension mechanism. If these screws and O-rings are removed, be careful not to allow the plate to slide off. The glide mechanism will fall out.

1. Rotate the headrest plate so both screw holes are accessible (see Figure 78).
2. Position the headrest cushion so the stand-offs are accessible through the headrest plate.
3. Add the top screw first and tighten lightly.
4. Add the bottom screw.
5. Tighten both screws completely.

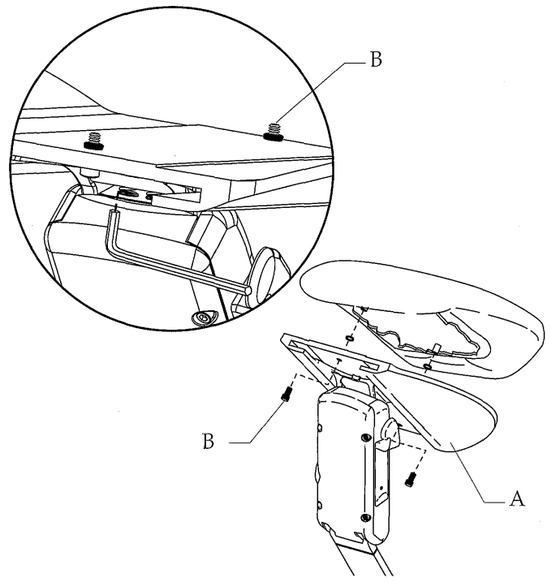


Figure 78. Add the headrest upholstery. (A) headrest plate; (B) screws and O-rings

How to Add the Seat Upholstery

WARNING: Remove seat upholstery before servicing the chair. DO NOT rely on the seat upholstery clip to retain the chair frame when lifting the seat for inspection underneath.

To attach the upholstery, place the two hooks on the back end of the seat upholstery under the chair carriage.

- Push the upholstery down until it snaps into place.
- Push down on the toeboard end until the lock is through the seat frame.
- Insert the clip into the lock.

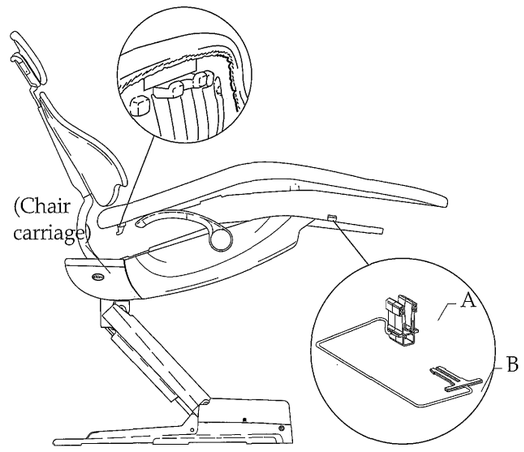


Figure 79. Attach the seat upholstery. (A) upholstery lock; (B) clip

Programming

A-dec 500 offers a variety of programming options. Refer to the appropriate module section for specific programming information.

How to Program the Chair

1. Use the manual controls (arrows) to position the chair to the desired operating position.
2. Press and release **Program** (one beep) (see Figure 80).
3. Press a numbered position button (three beeps).

Position 3 (X-ray/Rinse)

Position 3 can be toggled from the x-ray/rinse position to a programmed position. To program Position 3, press **Program** and then press and hold **Position 3** together for three seconds.

One beep confirms that the position can be programmed. To return to the x-ray/rinse position, repeat steps.

Three beeps confirms that the x-ray/rinse function is on.

NOTE: Disabling the x-ray/rinse function is a global function for the dual operator modules (A/B) on a deluxe touchpad. If one operator disables the function, it will not work for the other operator.

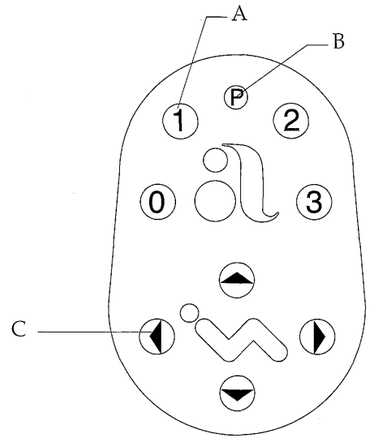


Figure 80. Footswitch buttons. (A) numbered position button; (B) Program button; (C) manual control

How to Program the Delivery System

When programming the touchpad, (see Figures 81 and 82) one beep indicates program mode and three beeps confirms programming. When overriding features (auto on/off dental light function, Position 3 (x-ray/rinse, and air/water coolant), one beep means the factory preset is disabled and three beeps means the factory preset is active.

Icon	Description
0	Entry/exit
1	Position 1
2	Position 2
3	Position 3 (x-ray/rinse)
	Program button
	Back down
	Base down
	Back up
	Base up
a-dec	Status icon
	Cup fill
	Bowl rinse
a1	a1 A-dec Relay Module
a2	a2 A-dec Relay Module
	Light
A/B	Dual operator mode (A/B)
	Water coolant
	Air coolant
m1	Memory positions (M1-M4)
	Forward
	Reverse
+	Increase
-	Decrease

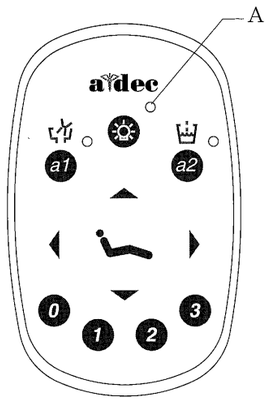


Figure 81. Standard touchpad. (A) indicator light

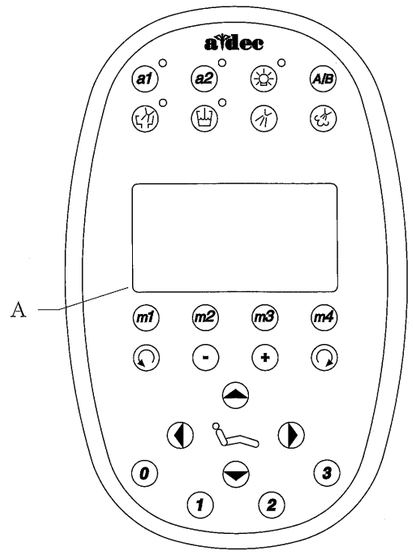


Figure 82. Deluxe touchpad. (A) operator mode

Dual Operator Mode (A/B)

The dual operator mode on the deluxe touchpad provides additional programmable positions for a second operator. To program the touchpad for two operators, first select the operator mode being programmed **(A/B)**. A letter in the lower left corner of the touchpad screen will appear showing active mode (see Figure 82). Program the appropriate function.

Handpiece Configuration for Deluxe Touchpad

If field installing a handpiece or upgrading to a deluxe touchpad, each handpiece position has to be configured. Follow these steps to configure each handpiece.

- Press and hold **Program** and **A/B** together until the touchpad switches to configuration mode.
- Activate the handpiece being configured, and follow the steps displayed on the touchpad screen.

Programming Memory

The memory settings (M1-M4) are different for both A and B modes and for each handpiece position. All memory settings are factory preset with both the air and water coolant on.

Electric Micromotor

When activated, the desired maximum RPM can be programmed into one of the four pre-programmed memory settings. To adjust the RPM limit, use **Plus (+)** and **Minus (-)**. Select water and air coolant to be on or off, and press **Program** and the memory button. Three beeps confirms the setting. The total range is 300-40,000 RPM. An RPM limit bar shows the RPM level for the electric micromotor.

EXAMPLE: If the RPM limit is set for 40,000 RPM and the power limit bar shows half, then the electric micromotor is operating at approximately 20,000 RPM.

The maximum RPM limits are factory set to the following:

Preset	Maximum RPM
m1	2,000
m2	10,000
m3	20,000
m4	40,000

Scaler

When activated, the desired power level can be programmed into one of the four pre-programmed memory settings. To adjust the power level (0 to 100%), use **Plus (+)** and **Minus (-)**. Select water and air coolant to be on or off, and press **Program** and the memory button. Three beeps confirms the setting. A power limit bar shows the power level to the scaler.

EXAMPLE: If the power limit is set for 50 percent and the bar shows half, then the scaler is operating at approximately 25 percent power.

The maximum power level limits are factory set to the following:

Preset	Power Level Limit
m1	25%
m2	50%
m3	75%
m4	100%

NOTE: When the deluxe touchpad displays 0%, the scaler continues to operate at minimum power causing tip movement.

How to Program the Cuspidor

Cup fill and bowl rinse functions can be programmed using a touchpad or the footswitch program button and the appropriate button on the cuspidor.

Follow these steps to program the cup fill and bowl rinse functions of the cuspidor.

1. Press **Program** (one beep).
2. Press and hold **Cup Fill** or **Bowl Rinse** for desired time.
3. Release button (three beeps).

How to Program the Dental Light

Dental Light (Auto On/Off)

The Auto On/Off setting can be turned off by pressing and holding **Program** and **Light** together for three seconds. One beep confirms the function has been turned off. To enable the function, repeat steps.

Three beeps confirms the Auto On/Off function is on.

Location of Integrated Options

The A-dec 500 delivery system can be ordered with several factory installed integrated options, or the options can be added as upgrades. The map shows the recommended placement inside the delivery system.

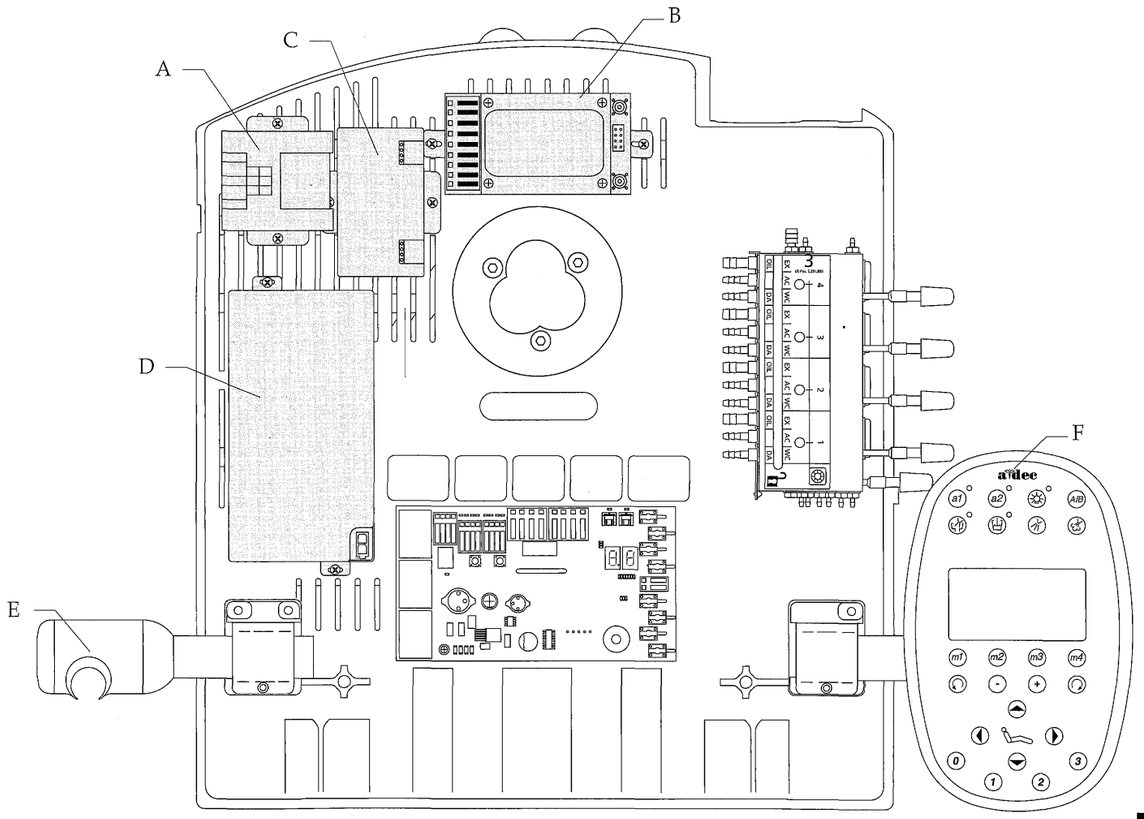


Figure 83. Location of the integrated options inside the delivery system. (A) scaler; (B) intraoral camera; (C) curing light; (D) electric micromotor; (E) accessory holder; (F) deluxe touchpad

NOTE: Refer to P/N 86.0953.00 for information on agency approved ancillary devices.

How to Install the EA-50LT Micromotor

Add the handpiece tubing before installing the micromotor control module. For instructions on installing handpiece tubing, see *How to Install Handpiece Tubing*. The EA-50LT micromotor can be used only with a deluxe touchpad.

How to Mount the Control Module

1. Orient the control module with the handpiece terminal strips pointed towards the delivery system circuit board.
2. Mount the control module to the structural platform, using two self-tapping screws (see Figure 84).

   The control module should be mounted as far forward as possible.
3. Squeeze the long sides of the control module to release the cover, and remove the cover.

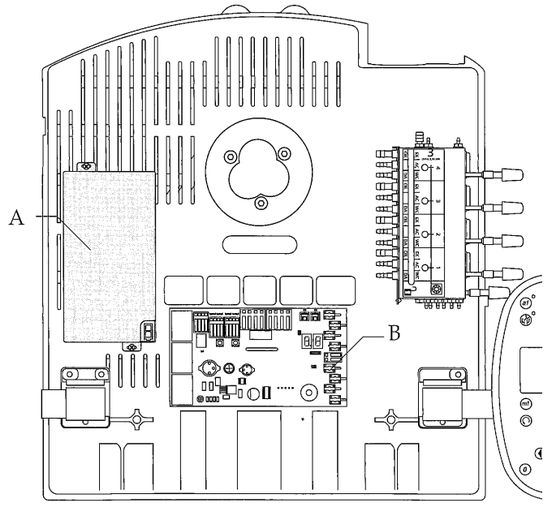


Figure 84. Location of the electric micromotor control module. (A) control module; (B) circuit board

How to Connect Wiring

1. Connect the white, yellow, red, and orange wires from the handpiece tubing, to the control module terminal strip (see Figure 85).

   NOTE: For a single micromotor use Position 1. If installing two micromotors, Position 1 is for the first micromotor, and Position 2 is for the second micromotor.

2. Connect the blue and black wires to the appropriate fiber-optic positions on the circuit board (if the micromotor is in Position 4, attach the wires to Position 4 on the circuit board).
3. Plug in the micromotor power cable to the control module.
4. Connect the black and gray power wires to the circuit board as shown in Figure 86 (black ØVAC, gray 24VAC).
5. Connect the data line to the circuit board and the control module.
6. Replace the control module cover and power ON the system.
7. Program the touchpad.

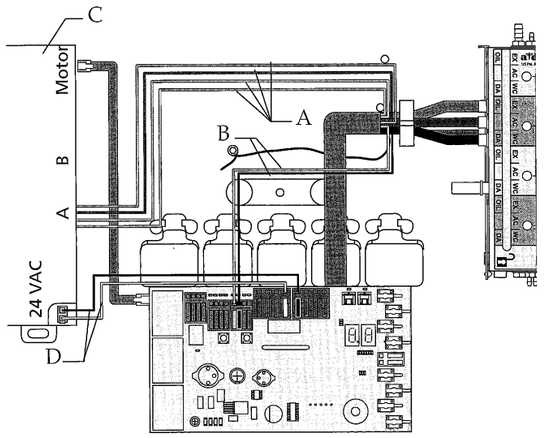


Figure 85. Connect the electric micromotor tubing and wires to the control block and circuit board. (A) handpiece tubing wires; (B) fiber-optic wires; (C) control module; (D) power wires

How to Set Lamp Voltage

1. Access the handpiece lamp.
2. Set the voltage at the lamp at 3.2 volts.

   NOTE: Voltage can be set to 3.6 volts at the terminal strip.

3. Use a volt meter to measure the voltage directly at the base of the lamp.
4. Activate the handpiece and ensure the lamp is illuminated.
5. Adjust the voltage by pressing **Increase** and **Decrease** on the circuit board (see Figure 86).

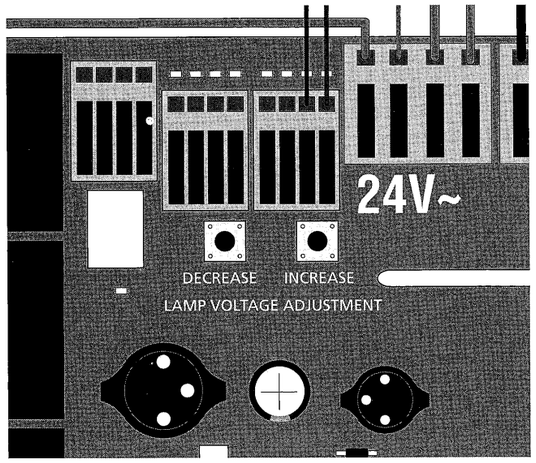


Figure 86. Adjusting lamp voltage.

A-dec Intraoral Camera

The camera handpiece tubing should be added before installing the camera control module. For instructions on installing handpiece tubing, see the *Delivery System* section.

NOTE: When used with a standard touchpad, the camera must be located in handpiece **Position 1**. If you have a deluxe touchpad, the camera can be used in any of the handpiece position, including handpiece Position 5, if you have an electric accessory holder for Position 5.

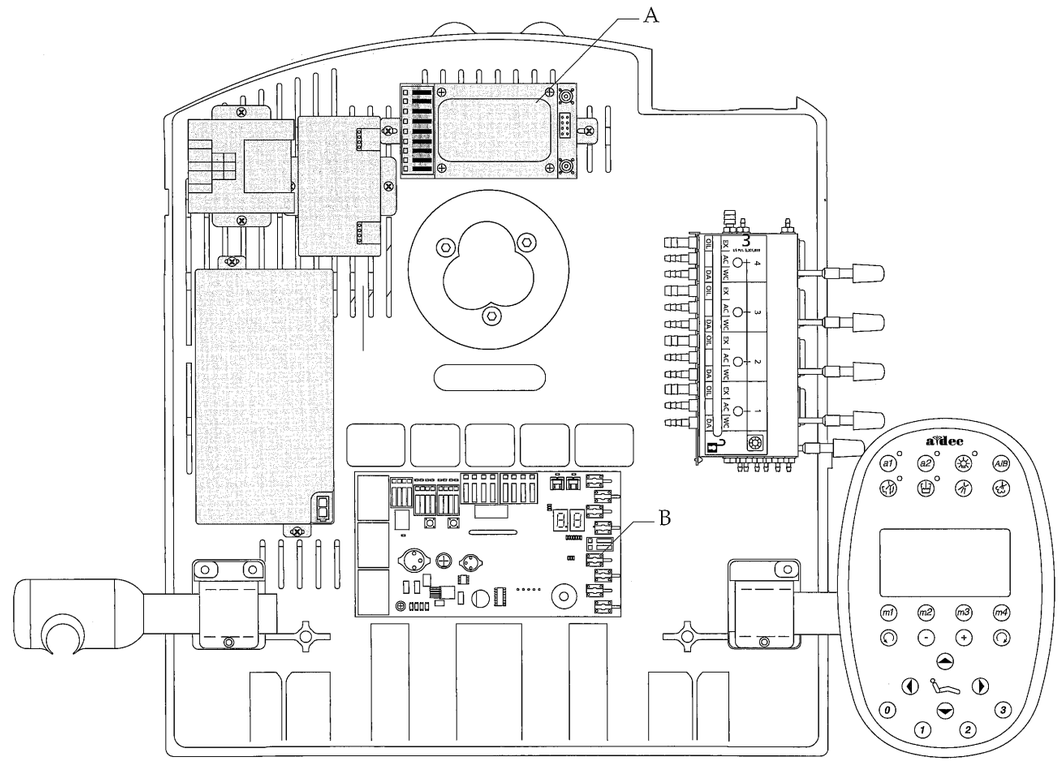


Figure 87. Location of the intraoral camera module. (A) camera control module; (B) delivery system circuit board

How to Install the A-dec Intraoral Camera

1. Orient and mount the control module to the structural platform.
2. Connect the handpiece video cable and the handpiece power connector to the control module (see Figure 88).
3. Connect the black and gray wires between the circuit board and control module (black, Ø VAC; gray, 24 VAC).
4. Connect the data line to the circuit board and to the control module.
5. Route the monitor video cable from the viewing system to the control module and connect.
6. Plug the open holes in the control block as shown in Figure 89.
7. If using with a deluxe touchpad, program the handpiece position.

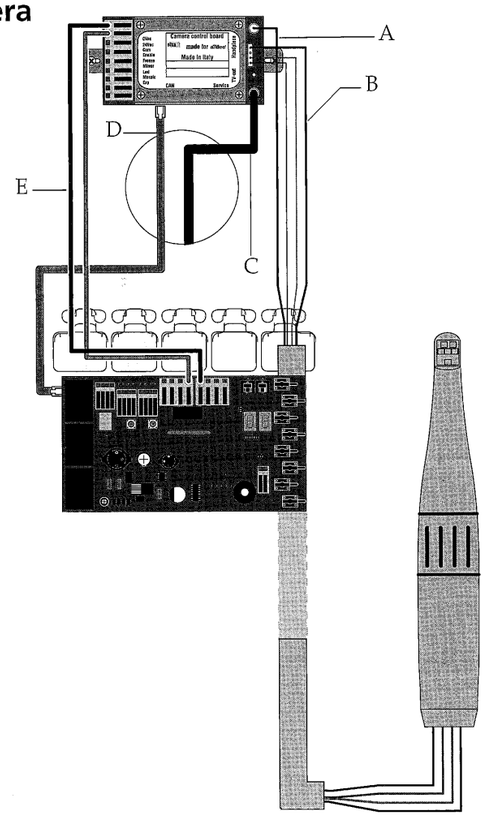


Figure 88. Connecting the camera handpiece wires to the control module. (A) video cable; (B) handpiece power connector; (C) monitor video cable; (D) data line; (E) power wires

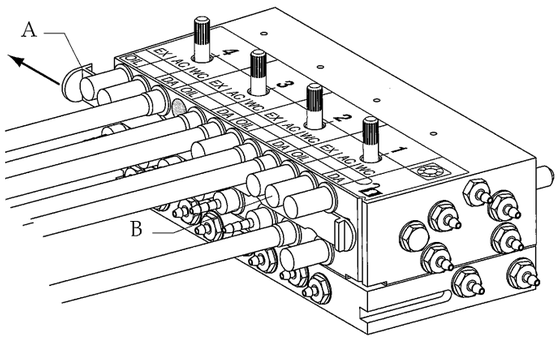


Figure 89. Plug open holes on the control block. (A) slidelock; (B) control block plug

How to Install a Tooth Dryer

Before you begin installing the tooth dryer, ensure the control block position is a dry position. For instructions on how to convert a wet/dry position, see *How to Convert a Wet/Dry Position*.

Add the tooth dryer tubing before installing the tooth dryer. For instructions on installing handpiece tubing, see *How to Install Handpiece Tubing*.

After installing tooth dryer tubing:

1. Install the tooth dryer to the handpiece tubing.
2. Activate the foot control and set the drive air pressure to 60 psi, to test that the tooth dryer functions.

   NOTE: Digital drive air pressure readout displays 6-8 psi less than actual

3. Remove the QD barb from the red exhaust line by making a diagonal cut just after the barb. Cable tie the unused tubing to the structural platform(see Figure 90).

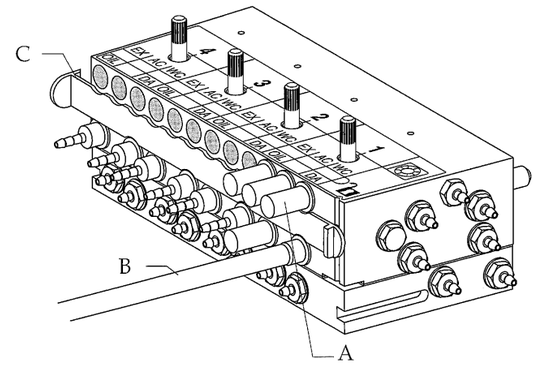


Figure 90. Attaching the drive air (clear) quick connect tubing to the control block. (A) control block plugs; (B) drive air tubing; (C) slidelock

CAUTION: The tooth dryer tubing can only be used for a tooth dryer. Never connect the tooth dryer to tubing previously used with a handpiece. Oil residues in the handpiece tubing will contaminate the tooth dryer internally, which may reduce or block air flow. In addition, oil residues blowing out of the dryer may seriously contaminate the work surface.

How to Convert a Wet/Dry Position

How to Remove the Control Block

1. Power OFF the delivery system and exhaust the air.
2. Open the delivery system cover, and unscrew the mounting screw that secures the guide plate as shown in Figure 91.
3. Slide the guide plate toward the back of the delivery system and lift the control block out.

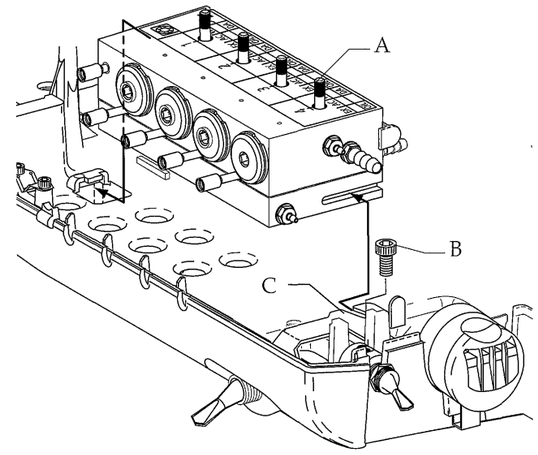


Figure 91. Release the control block by unscrewing the mounting screw. (A) control block, (B) mounting screw, (C) guide plate

How to Replace a Wet/Dry Cartridge

1. Remove the adjustment key.
2. Line up the notch in the cartridge ring over the adjustment stem and remove the stem.

   NOTE: The cartridge ring holds the adjustment stem in place so that it is not removed when making adjustments.

3. Remove the old cartridge and screw in the new cartridge, but do not tighten (see Figure 92).
4. Replace the stem, rotate the cartridge ring clockwise to stop, and tighten the cartridge.
5. Reinstall the control block and adjustment key.

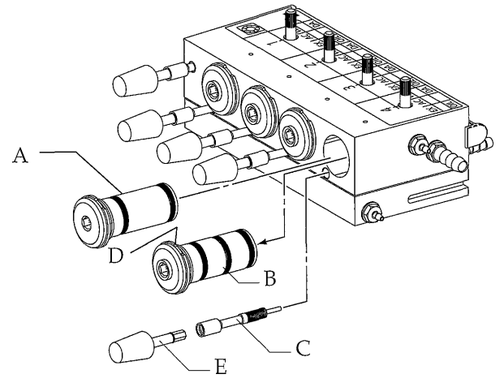


Figure 92. Switching out the wet position with a dry position. (A) dry cartridge, (B) wet cartridge, (C) adjustment stem; (D) cartridge ring; (E) adjustment key

How to Reinstall the Control Block

Remount the control block to the delivery system structural platform using these steps.

1. Replace the control block, front end first, in the delivery system.
2. Replace the guide plate into the groove on the back of the block.
3. Replace and tighten the control block mounting screw.
4. Power ON the delivery system.
5. Test the new cartridge by operating the handpiece for that position.

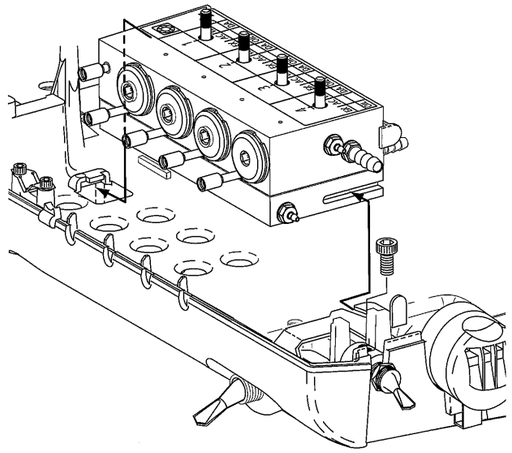


Figure 93. After replacing the cartridge, reinstall the control block.

How to Install an A-dec Relay Module

The A-dec relay module can be used to control external devices from the touchpad, foot control, or other control sources. The control source is determined by the position of the jumper on the relay module test points.

1. Disconnect the device(s) from the power source.

WARNING: Line voltage will be active when the A-dec relay closes. Line voltage power, maximum power: 250 VAC - 13A. Connections to mains power must be performed by an electrician or qualified personnel familiar with local and national electrical codes.

2. Connect the device being controlled by an A-dec relay module using the wiring diagrams shown (see Figures 94-96).
3. Connect the data line from the A-dec relay module to any A-dec 500 circuit board.
4. Move the jumper on the terminal strip to the appropriate position (see Figure 97).

   The terminal strip jumper ships in the auxiliary position when the relay module is configured to operate from A1 or A2.
5. Power ON the device(s).

   The LEDs next to the **a1** and **a2** buttons on the touchpad, illuminate when the A-dec relay module is on.

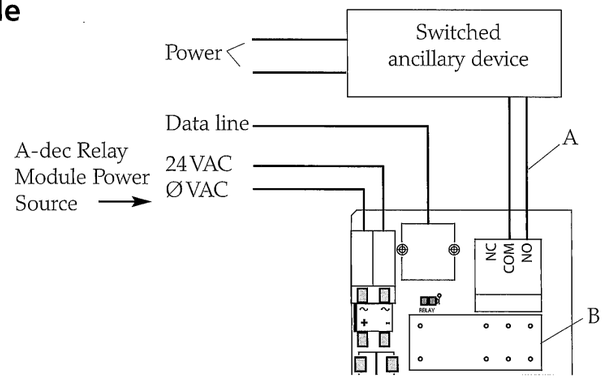


Figure 94. On/Off switching contacts. (A) On/Off control wires; (B) A-dec relay module

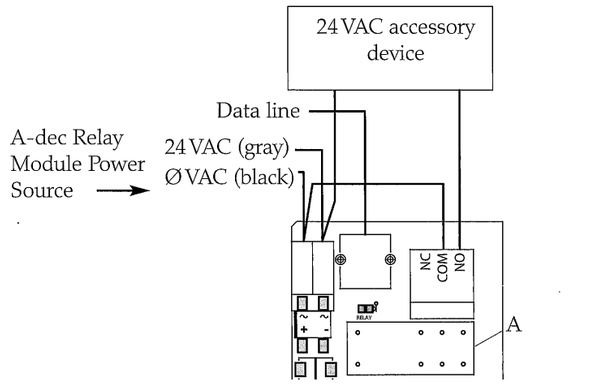


Figure 95. 24 VAC power switching. (A) A-dec relay module

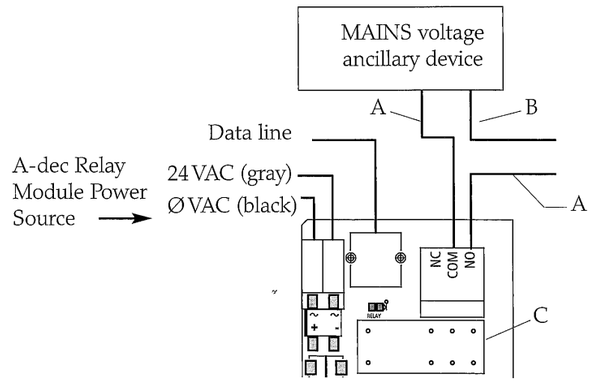


Figure 96. Mains power switching. (A) line; (B) neutral; (C) A-dec relay module

How to Test the A-dec Relay Module

Set the appropriate jumper to activate the device.

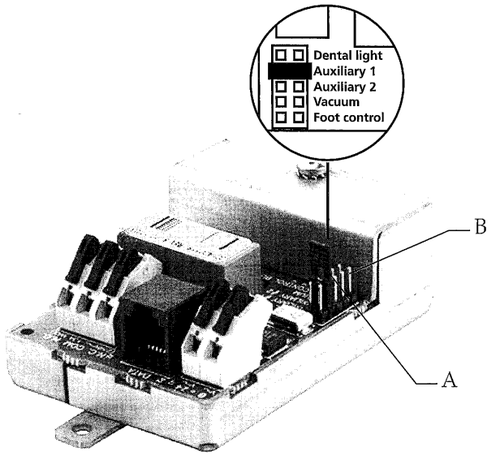


Figure 97. Jumper position on the A-dec relay module. (A) jumper; (B) test points

LED Diagnostic Chart

Use this chart to verify functionality of the device and the A-dec relay module.

If the . . .	Is . . .	Check for . . .
AC power LED	OFF = No 24VAC power.	A tripped circuit breaker, power supply turned off, or no line voltage.
	Green = 24VAC at terminal strip.	
Status LED	OFF = System is not functioning.	Problem with power to the circuit board, or the circuit board is not working.
	Green, steady = Normal condition	
Data LED	OFF = No DATA system communication.	DATA system connection, or the DATA system is not working.
	Green, steady = System detects active DATA system.	
	Green, blinking = Valid DATA system message.	
K1 Relay	OFF = A-dec relay module is OFF.	
	Yellow = A-dec relay module is ON.	

How to Install the Accessory Holder

The accessory holder is either an active, or a non-active position. It can be mounted on either side of the delivery system, opposite the touchpad.

1. Turn power OFF.
2. Remove the delivery system covers, mounting screw, bracket, and plug.
3. Slide the accessory holder slot onto the ridge in the mounting area of the structural platform.
4. Secure the holder to the structural platform with the bracket and mounting screw (see Figure 98).
5. If you are installing an electric accessory holder, connect the wires to handpiece Position 5 on the circuit board. Vacuum is the default setting for Position 5, using a standard touchpad.

   Test the holder by ensuring the vacuum relay LED on the chair circuit board turns on and off.

   NOTE: After installing an electric accessory holder, an intraoral camera can be installed in the accessory holder position. A deluxe touchpad is required.

6. Adjust the angle of the holder if necessary.
   - Pull out on holder.
   - Turn to desired position and release, as shown in Figure 99.

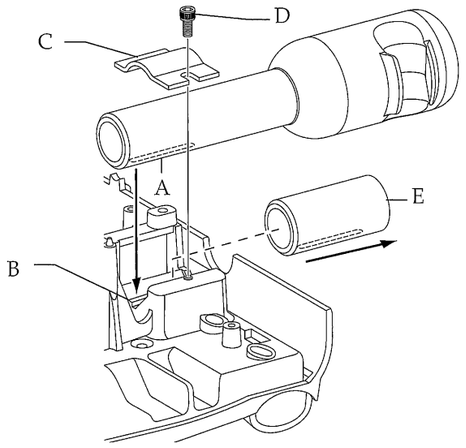


Figure 98. Slide the accessory holder slot onto the ridge in the mounting area. (A) slot, (B) ridge; (C) bracket; (D) mounting screw; (E) plug

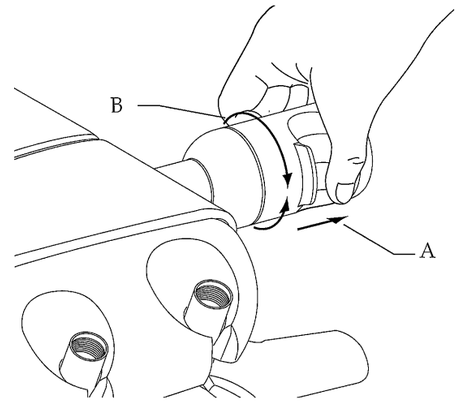


Figure 99. Position the holder. (A) pull holder; (B) turn to position

How to Upgrade to a Deluxe Touchpad

How to Remove the Standard Touchpad

1. Remove the delivery system covers, and power the delivery system OFF.
2. Disconnect the touchpad data line and power wires from the delivery system circuit board.
3. Unscrew the bracket and remove the standard touchpad.

How to Install the Deluxe Touchpad

- Attach the deluxe touchpad to the delivery system with the mounting screw and the bracket (see Figure 100).
- Connect the deluxe touchpad data line and power wires to the delivery system circuit board (black to Ø VAC, gray to 24 VAC).

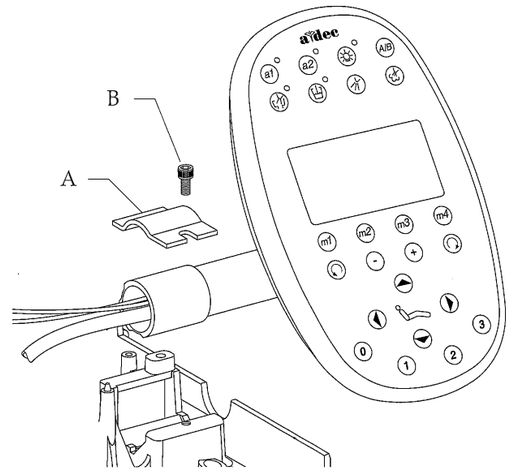


Figure 100. How to mount the deluxe touchpad onto the delivery system. (A) bracket, (B) mounting screw

How to Replace the Water Coolant Relay Valve

1. Cut the air coolant tubing (green with long white dash) on both sides of the tee coming off of the water coolant relay valve (see Figure 101).
2. Cut the water coolant signal tubing (green with short dash) at the barb on the water coolant relay valve.
3. Cut the coolant activation tubing (clear) on both sides of the tee coming off of the water coolant relay valve.
4. Unthread the screw and remove the water coolant signal relay valve from the control head.

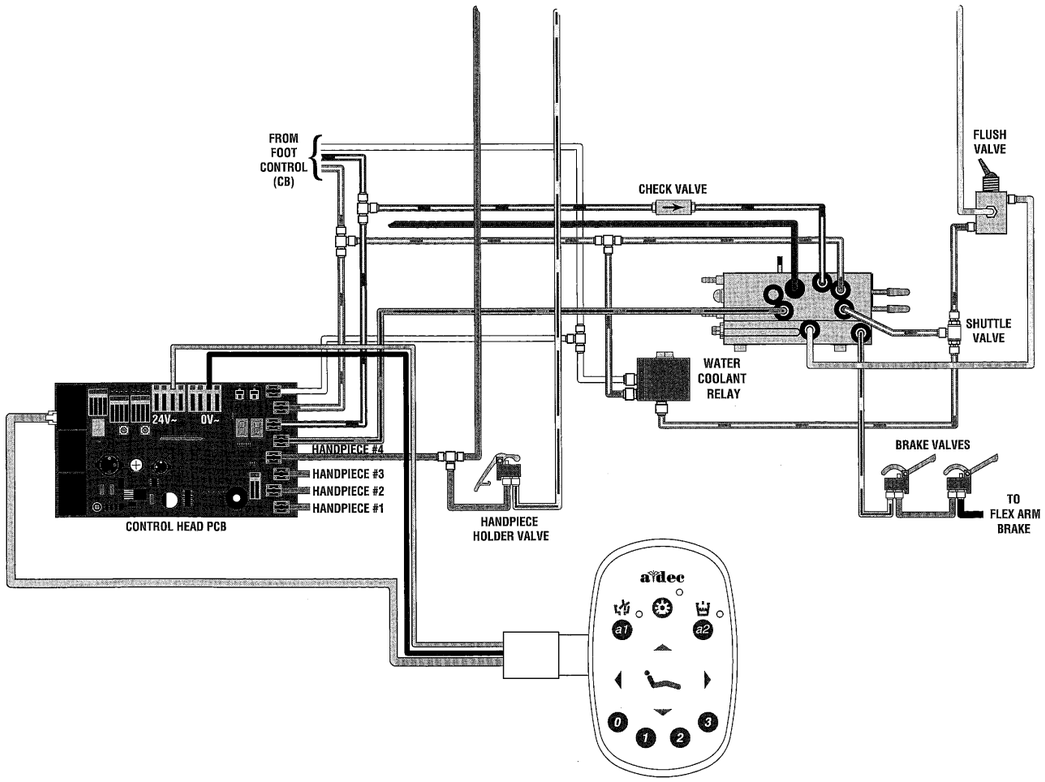


Figure 101. Connecting the tubing to the standard touchpad.

How to Install the Solenoid Manifold Assembly

Remember to place uni-clamps on all barb connections.

1. Reconnect the two ends of the water coolant activation tubing (clear tubing in the control head) using an inline barb (see Figure 102).
2. Connect the air coolant tubing (green with long white dash) coming from the foot control to the input barb on the solenoid manifold assembly.
3. Connect the air coolant tubing (green with long white dash) that is connected to the control block, to the output barb for the air coolant solenoid valve.
4. Connect the water coolant signal tubing (green with short dash), that is connected to the shuttle valve, to the output barb for the water coolant signal solenoid valve.
5. Connect the solenoid wires to the delivery system circuit board. Be sure to connect the air coolant solenoid to the air coolant location on the circuit board.
6. Secure the solenoid manifold assembly with the screw.
7. Power on the system and verify that the touchpad operates correctly.

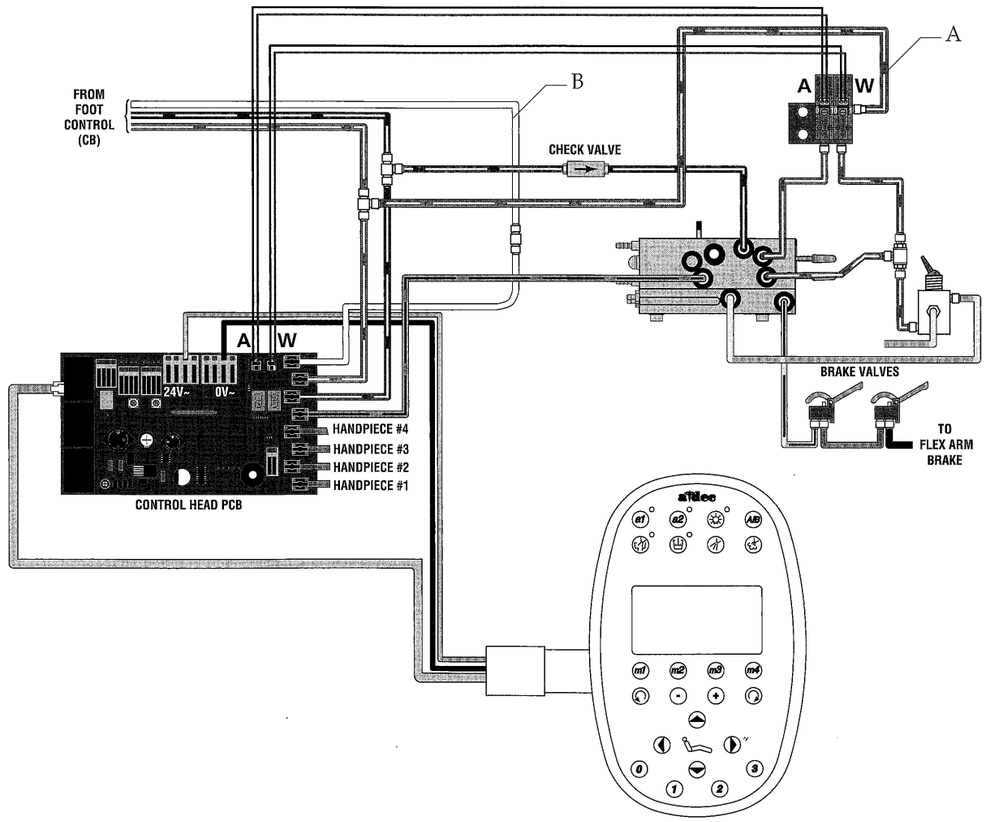


Figure 102. Connecting the tubing to the deluxe touchpad. (A) air coolant tubing; (B) water coolant activation tubing

How to Install Assistant's Holder Assemblies

Additional holders can be added to an assistant's holder assembly. The new holders can be installed in any order.

How to Add a Non-Electric Holder

Disassemble the holder assembly to the point where the new holder will be installed (see Figure 103).

1. Unscrew and remove the end cap, axle(s), and any holder positions necessary for placement of the new holder(s).
2. Screw on the new holder in the desired position and reassemble any holder positions that were removed.
3. Replace the end cap and tighten the screw.

After installing the non-electric holders, place the assistant's instruments in the holders.

If an electric holder was installed, go to *How to Wire an Electric Holder Assembly.*

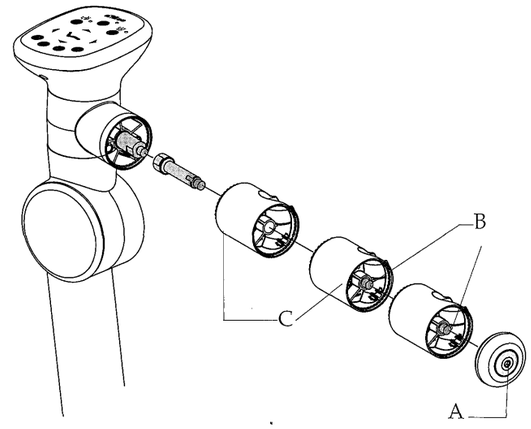


Figure 103. Adding a new holder to a non-electric holder assembly. (A) end cap; (B) axles; (C) holders

How to Add an Electric Holder

Before adding electric holders, it will be necessary to remove the touchpad and existing holders from the assistant's arm.

How to Remove the Touchpad and Holders

Use these steps to remove the touchpad and electric holder assembly when adding a new electric holder.

1. Turn the power OFF.
2. Unscrew the two screws securing the touchpad.
3. Disconnect the power wires and data line from the touchpad and remove the touchpad as shown in Figure 104.
4. Remove the cable tie and cable bushing.
5. Unscrew and remove the end cap, axle(s), and holder positions.

   All holder positions need to be removed so wires can be routed to the turret, see Figure 104.
6. Remove the pivot covers and pull the data line and power wires out of the pivot, until the ends of the data line and wires are down inside the mounting bolt.
7. Disconnect the mounting bolt, spline, washers and touchpad base.

   Leave them assembled together.

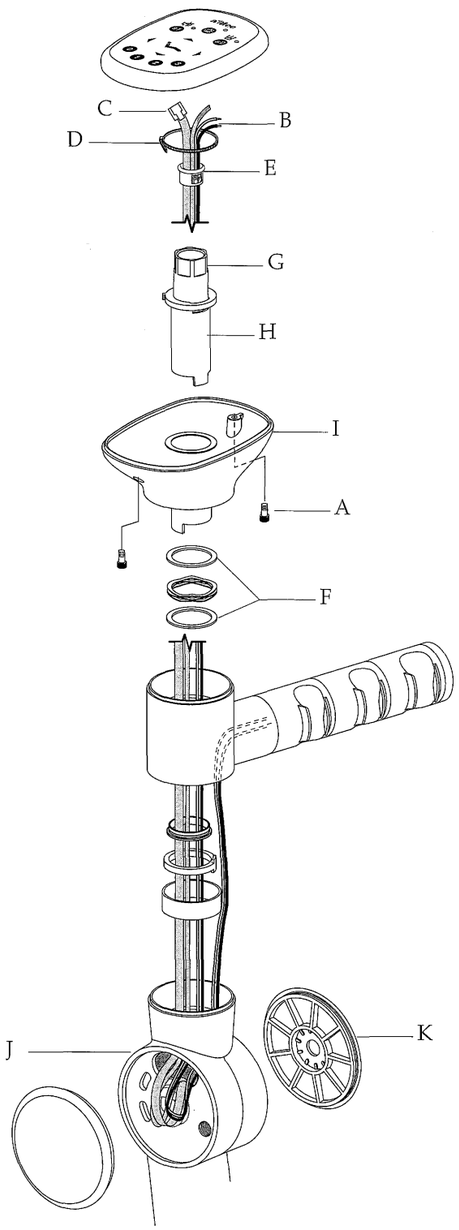


Figure 104. Removing the holder assembly.
(A) touchpad screws; (B) power wires; (C) data line
(D) cable tie; (E) cable bushing; (F) washers ;
(G) mounting bolt; (H) spline; (I) touchpad base;
(J) pivot; (K) pivot covers

How to Assemble the Electric Holder

1. Route the new wires through the holder(s) before attaching the holders together as shown in Figure 105.
2. Screw together the holders and axles.
3. Route the wires down through the turret.
4. Replace the end cap and tighten the screw.

NOTE: See *How to Wire an Electric Holder Assembly* to connect holder wires.

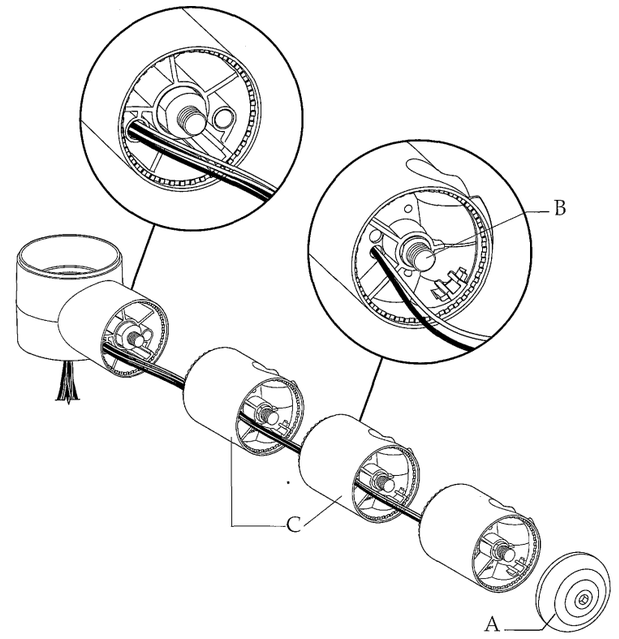


Figure 105. Adding a new holder to an electric holder assembly. (A) end cap; (B) axles; (C) holders

How to Wire an Electric Holder Assembly

Follow these steps to wire the electric holder assembly.

1. Route the holder wires down through the small holes of the pivot, and back up through the center of the pivot (see Figure 106).
2. Route the data line, power wires and holder wires up through the turret, washers and touchpad base (see Figure 107).
3. Insert all of the wires through the wire, stop, bearing, sleeve, washer, spring washer, touchpad base, spline, and mounting bolt.
4. Align the spline with the slot in the pivot and screw in the mounting bolt until tight.
5. Attach the power wires (gray to 24 VAC, black to Ø VAC) and the data line to the touchpad circuit board.
6. Attach the electric holder wires to the touchpad circuit board.
7. Install the cable bushing and new cable tie.
8. Attach the touchpad with two screws, gently twisting the touchpad as it is positioned on the touchpad base.

   Use care not to pinch any of the wires.
9. Install the pivot covers.

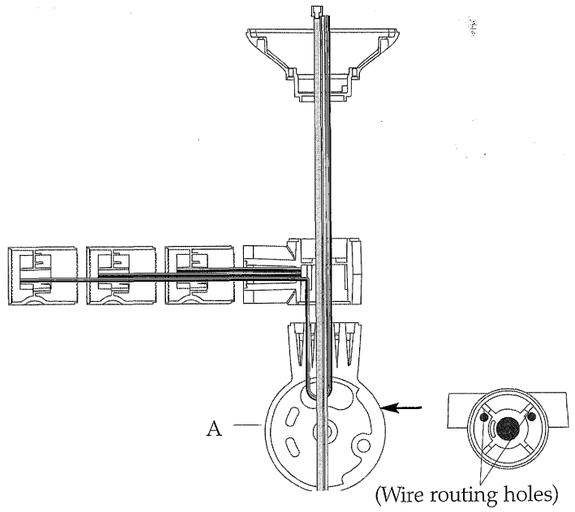


Figure 106. Wire routing for the electric holder assembly. (A) pivot

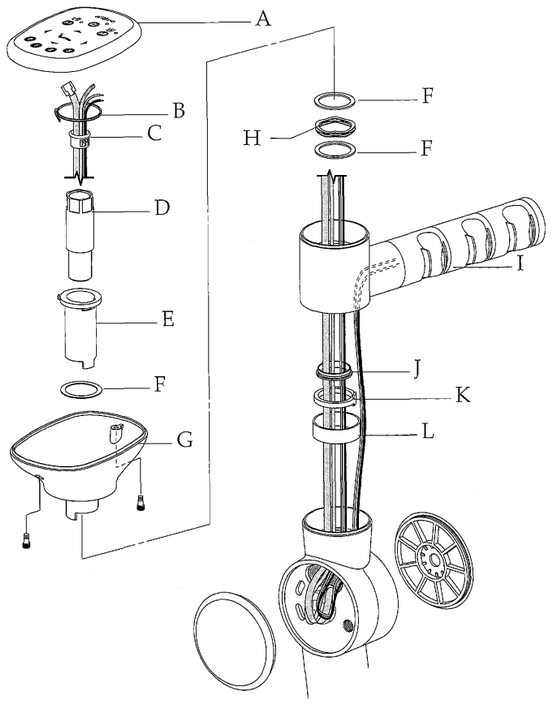


Figure 107. Reinstalling the holder assembly. (A) touchpad cover; (B)cable tie; (C) cable bushing; (D) mounting bolt; (E) spline; (F) washer; (G) touchpad base; (H) spring washer; (I) holder assembly; (J) bearing; (K) stop; (L) wire sleeve

After completing the install, use this checklist to ensure proper installation of equipment and that all functions are working properly.

Doctor's name: _____

Authorized A-dec dealer: _____

Installed by: _____

Date of installation: _____

Serial numbers: Chair: _____ Delivery System: _____ Assistant's: _____

Cuspidor: _____ Light: _____

Chair and Floor Box	Yes	No	Follow up
Chair bolted to the floor			
Chair stop plate functions			
Chair swivel brake functions			
Chair headrest glide bar tension adjusted			
Chair upholstery installed correctly			
Chair footswitch programmed and functions			
Chair air/water manifold secured tightly			
Floor box air pressure correct (80 psi)			
Umbilical metal spring clip retainer in place on chair lift arm			
Floor box tubing connections secure			
Floor box drain and vacuum connections correct			
Floor box electrical connections secure			
Floor box secured to floor			

Photocopy as needed.

Delivery System	Yes	No	Follow up
Control head and tray holder level			
Control head swivel tension adjusted			
Handpiece drive air pressure set correctly			
Handpiece coolant spray set correctly			
Control head air brake operates correctly			
Foot control operates instruments correctly			
Delivery system flexarm tension adjusted			
Delivery system rotation stops function			
Delivery system touchpad programmed, as required			
Assistant's Instrumentation			
Assistant's vacuum operates correctly			
Strainer basket installed in solids collector			
Assistant's syringe adjusted correctly			
Cuspidor and Water System			
Water bottle filled with water and treatment solution (ICX tablet)			
Support center rotation stop functions correctly			
Water bottle checked for pressurization			
Operation of stop switch checked			
Operation of cup fill and bowl rinse checked			
Bowl rinse and cup fill flow controls adjusted			
Cuspidor strainer basket installed			
Cuspidor drain flows correctly			
Light and Monitor			
Light intensity settings function correctly			
Light flexarm counterbalance adjusted			
Light head adjustments have been made			
Light focus adjusted correctly			
Monitor tilt/drift adjusted correctly			
Monitor swivel stop functions correctly			

Photocopy as needed.

Agency Symbols

Identification of Symbols

c UL us LISTED	Recognized by Underwriters Laboratories Inc.® with respect to electric shock, fire and mechanical hazards only in accordance with UL 2601-1. Recognized with respect to electric shock, fire, mechanical and other specified hazards only in accordance with CAN/CSA C22.2, No. 601.1	CE	Conforms to European Directives (refer to Declaration Statement)
			Protective earth (ground)
c UL us LISTED	UL listed to US (UL 544) and Canadian (CAN/CSA C22.2, No. 125) safety standards		Functional earth (ground)
			Attention, consult accompanying documents
CLASSIFIED c UL us UL 2601-1 C22.2,No. 601.1	Classified by Underwriters Laboratories Inc. with respect to electric shock, fire and mechanical hazards only in accordance with UL 2601-1. Classified with respect to electric shock, fire, mechanical and other specified hazards only in accordance with CAN/CSA C22.2, No. 601.1		Type B applied part
			Class II equipment

Classification of Equipment (EN 60601-1)

Types of shock protection:

Class I Equipment
(Dental Chairs, Dental Lights, & Power Supplies)

Class II Equipment
(Chair, Wall, & Cart-Mounted Delivery Systems)

Degree of shock protection:

Type B Applied Part
(Delivery Systems Only)

Degree of protection against water ingress:

Ordinary Equipment
(All products)

Mode of operation:

Continuous Operation
(All models except Dental Chairs)

Continuous Operation with Intermittent Loading
(Dental Chairs -5% duty cycle)

Environmental

For Storage:	All equipment (except dental furniture)
Temperature:	-40°C to 70°C -40°F to 158°F
Relative Humidity:	95% maximum

For Operation:

Temperature:	10°C to 40°C 50°F to 104°F
Relative Humidity:	95% maximum

Electromagnetic Compatibility

This equipment has been tested and found to comply with the limits for medical devices in EN60601-1-2. These limits are designed to provide reasonable protection against harmful interference in a typical medical installation.
Contact A-dec Customer Service, if you have any questions.

Flammable Gasses

Not suitable for use in the presence of a flammable anesthetic mixture with air, oxygen or nitrous oxide, where such gasses may accumulate in concentration (closed space).

General Information
Chair
Front Mount
Front-Mount Self-Contained Water
Delivery System
Front Monitor Mount
Floor Box
Support Link
Lower Support Arm
Assistant's Instrumentation
Support Center and Cuspidor
Support Side Monitor Mount
Dental Light
Amalgam Separator Housing
Final Leveling and Adjustments
Covers
Upholstery
Programming
Integrated Options
Installation Checklist

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